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Orono, Me, 1916. 2.50



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HISTORY
OF THE
MAINE STATE COLLEGE
AND THE
UNIVERSITY OF MAINE

BY
MERRITT CALDWELL FERNALD, LL. D.



UNIVERSITY OF MAINE
ORONO, MAINE
1916

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TO
THE GRADUATES AND FORMER STUDENTS
OF THE
MAINE STATE COLLEGE AND THE UNIVERSITY OF MAINE
THE INSTITUTION WHICH THROUGH THE ASSOCIATION OF
YEARS HAS CLAIMED AND RECEIVED OUR COMMON LOVE
AND LOYALTY THIS VOLUME OF HISTORY IS AFFEC-
TIONATELY DEDICATED WITH THE SINCERE
REGARD AND BEST WISHES OF
THE AUTHOR

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INTRODUCTION

ROBERT J. ALEY

IT required much persuasion to induce Dr. M. C. Fernald to undertake the task of writing the history of the University of Maine. His modesty made him feel that because of his intimate relation with everything that the University had done it would seem egotistical on his part to tell the story. But as he was the only man who knew the institution from its opening in 1868 to the close of 1915, it was felt that he must be induced to undertake the task of writing the history. Persuasion and argument finally prevailed. The last year of his life was spent in preparing the manuscript. His friends and family believe that this last year's work was one of the happiest of his whole life. He lived over again in memory and retrospect the events from 1868 to 1915.

Dr. Fernald has put into this work the same care and system that has characterized all he ever did. He has verified his statements and his memory by reading reports and old records. He has succeeded in dealing justly with all the various men and forces that have had to do with pushing forward or holding back the development of the institution. He has given to us in permanent form what no other man was able to give. It was his good fortune to be present at every Commencement from the first to that of 1915 inclusive. He witnessed the conferring of every degree that has been awarded by the University.

The loyalty and service of Dr. Fernald to the University surpass anything that mere words can express. He opened the institution in 1868. His ability and wisdom found expression in the early plans and courses. He had the pleasure of seeing it grow to a great power in the State thus proving the worth of the foundation which he had laid. It is, therefore, no cause for wonder that he loved the University as he loved his own. Not very long before his death, the members of his family were discussing the question of buying a burial lot in Mount Hope Cemetery. He listened attentively to the discussion and closed it by saying: "You may do as you please. I shall be buried on the hill in the cemetery across the river from the University in sight of the buildings which I love and where I have lived and worked."

Whether as professor, acting president, president, or professor emeritus, Dr. Fernald gave to the University of Maine the fine and superior service that his splendid character, his broad education, and his unusual personal qualities made possible. His was a nature of singular sweetness and kindness. His fellow men loved him. They knew that he was sound and true, and therefore they did not hesitate to anchor themselves to him. No man ever connected with the University endeared himself to the students as did Dr. Fernald. The mention of his name to a group of alumni always arouses great interest and brings sincere applause. He has passed from us but he has left an enduring monument in the great institution to which he devoted his life and of which he was a part from its beginning to the day of his departure.

PREFACE

IN response to many requests this volume has been written. The arguments presented for the writing were always the same and seemed unanswerable, and yet the work was not undertaken until it settled down upon the writer's mind as a duty, a duty which he owed to the thousands of graduates and non-graduates with whom he had been so pleasantly associated, and to other thousands who will be their successors in the coming years.

From abundant material, he has selected facts and incidents which he has believed all would agree ought not to be omitted, and he hopes it will be found that no very large amount of material has been left out which, under the general plan and space designed, should have been included.

Following the chronological order of events treated under the different administrations in the first eight chapters, other chapters have been added relating to special departments and interests of the institution. Some of these have been written at my request by different members of the University faculty, to whom my grateful acknowledgments are due.

First of all, we are indebted for the introductory chapter to Dr. Robert J. Aley, the honored President of the University. Personally, I am also indebted to Dr. Aley for generous coöperation in all plans relating to the writing and publishing of this history.

We are indebted to several Deans for the interesting chapters pertaining to their special colleges; to

Dean Stevens for the chapter on the College of Arts and Sciences, to Dean Boardman for the chapter on the College of Technology, to Dean Merrill for the chapter on the College of Agriculture and Extension Courses, and to Director Woods for the chapter on the Maine Agricultural Experiment Station.

I desire also to acknowledge the kindness of Dean Walz in furnishing valuable data for the chapter on the College of Law.

We are all under obligation to the librarian, Professor Ralph K. Jones, for writing in part the chapter on the Library, for the chapter on the Fraternities, and for furnishing other important material from records preserved in the Library. My thanks are especially due the committee of the Alumni Association, consisting of Messrs. Charles E. Oak, Class of 1876, Albert H. Brown, Class of 1880, and Edward H. Kelley, Class of 1890, for their valuable suggestions and hearty co-operation.

To all, whether their names are mentioned or not, who in thoughtful and kindly ways have contributed to this volume, I desire to express my grateful appreciation.

CHAPTER I

PRELIMINARY HISTORY

THE early name of the institution now known as the University of Maine was the Maine State College of Agriculture and the Mechanic Arts, or more briefly, the Maine State College.

Its preliminary history includes the more important events immediately preceding and leading up to its establishment as an institution of learning.

As early as 1859, in response to numerous petitions, a bill to "promote the liberal and practical education of the industrial classes," was drawn by Hon. Justin S. Morrill of Vermont, then a member of the National House of Representatives, and was passed by both branches of Congress.

This bill proposed to give to the several states and territories 20,000 acres of land for each of their senators and representatives in Congress, for the purpose above stated. It was vetoed by President Buchanan.

Three years later, a bill differing from the former in that it assigned 30,000 acres of land to the several states and territories for each senator and representative in Congress, also passed in both branches of Congress. This bill, known as the Morrill Act, was approved on July 2nd, 1862, by the then President of the United States, Abraham Lincoln. This endowment act will be found in full in the Appendix to this history.

With this genuine interest in whatever pertained to the welfare of the people, we may well believe it gave

Mr. Lincoln unfeigned satisfaction to sign this national land-grant act, by virtue of which the so-called new education was established as a national system.

It should be stated that the new education was not conceived in a spirit of hostility to existing systems. It rather sought, in accord with the Baconian philosophy in education, a closer correlation than hitherto had existed, between the brain and the hand, between theory and practice, and so the enlarging of the boundaries of the educational field, especially as related to the practical enterprises and affairs of life.

Observation of its working through practically half a century, with increasingly important results, confirms the wisdom of its adoption, and justifies its claim as a most valuable supplement to the systems and methods in education heretofore existing.

As before stated, the endowment act assigned 30,000 acres of land for each senator and representative in Congress to the several states and territories that should accept its terms and conditions. In 1862, Maine's representation in Congress numbered seven, two senators and five representatives, and therefore the State was entitled to 210,000 acres of land, in case of acceptance of the grant.

For an admirable presentation of Maine's action in the premises, of the settling of the question whether the new college should be connected with one of the existing colleges of the State, or be an independent institution, of the early appointment of trustees and what they did in the way of preparing for the opening of the college, we shall be principally indebted to an address delivered by Hon. Lyndon Oak of Garland, on the occasion of the Dedication of Coburn Hall in 1888. Mr. Oak, at that time, was President of the Board of

Trustees, of which Board he had been a member for more than twenty years. He was thoroughly conversant with the events which he describes, in some of which he was an important factor. It is good fortune that a record of these early events, at once comprehensive and trustworthy, can be commanded. From his carefully prepared address, the following account is taken:

“The first session of the legislature of Maine, thereafter, was in the winter of 1863. The late Hon. Abner Coburn, whose name is so intimately and beneficently associated with the entire history of our college, was governor. In his opening message to the legislature, he called attention to the act with characteristic brevity, as follows: ‘There can be no doubt, I think, that vast benefits will flow from this act, and I have no hesitation in urging upon you the prompt acceptance of its terms and conditions.’ Now that the subject was before the legislature the question of acceptance was the first to confront the members. It was a new problem. The friends of existing colleges looked upon it suspiciously. The average legislator approached it warily. The State Board of Agriculture favored acceptance. The gift tendered the State was prospectively valuable, and must not be lost by default. The legislature voted to accept the Act, March 25, 1863. This was an important step, because such acceptance pledged the State to the support of at least one college to ‘promote the liberal and practical education of the industrial classes.’ The resolve was passed providing for the appointment of thirteen regents to devise measures for carrying out the purpose of the Land-Grant Act, and a joint convention of the two branches of the legislature assembled to appoint the regents. The convention appointed a com-

mittee of one from each county to designate suitable persons for the regency, and adjourned to meet on the following day. It met in pursuance of the adjournment, but failed to accomplish the purpose of the meeting. Another incident of the session of 1863 was the proposition of Waterville College that the national donation of lands should be transferred to that institution, which, in consideration of the transfer, was ready to stipulate that two additional professorships should be established, and a specified number of students should be instructed in applied chemistry, civil engineering, and other branches of learning more or less closely connected with agriculture, without charge for tuition. This proposition did not meet with favor.

"At the opening of the legislative session of 1864, Governor Cony gave his views upon the scope and importance of the new educational scheme, as follows: 'While among the sciences to be taught, it is declared that the leading object is to teach those relating to agriculture and the mechanic arts, the language of the act making the grant, declaring specifically that it is not its purpose to exclude other sciences, is pregnant with the conclusion that the design was to establish institutions of learning of the highest order; for its scope is as comprehensive as its whole design is liberal.'

"The legislature of 1864, like its predecessor, refrained from an exhibition of unseemly haste to grapple with the problems connected with the new college. A resolve was approved March 24th, near the close of the session, authorizing the Governor to dispose of the land-scrip granted by the national government for the establishment of the college. It also passed a resolve approved March 25th, authorizing the Governor and Council to appoint three commissioners, whose

duty it should be to memorialize Congress for an extension of the time during which the college might be established; also to receive donations and benefactions in aid of said college; also proposals for the location thereof; also to confer with the States engaged in the same enterprise, and report thereon to the next legislature. The commissioners appointed by virtue of this resolve were Wm. G. Crosby, Joseph Eaton and Samuel F. Perley. They prepared a voluminous report, which was dated December 19, 1864. It came before the legislature early in the session of 1865, and was referred to the joint special committee on agriculture. It afforded the occasion for earnest and protracted discussion. The question of absorbing interest was, shall the institution be connected with an existing institution, or shall it be independent? It must have a habitation and a name. The name would come easily enough, but, if established on an independent basis, how could the funds required to construct the necessary buildings be obtained? The Land-Grant Act forbade the use of any portion of the funds derived from the sale of lands, or the interest thereon, directly or indirectly, for the purchase, erection, preservation or repair of any building or buildings. It was assumed that, in consideration of the extraordinary drafts upon the State Treasury necessitated by the war then in progress, aid from the State must not be expected or even asked. There was no reckless haste to tender the necessary funds by individuals. In view of these adverse conditions, many of the friends of the college naturally looked to existing colleges for the solution of this difficult problem. Bowdoin and Waterville were ready, with elaborate propositions, to relieve the State of all embarrassment in this matter.

“Governor Coburn had said in 1863, ‘it may be expe-

dient, and indeed absolutely necessary, to allow some of our existing institutions to avail themselves of the benefit of the grant.' Governor Cony had said in 1864, 'without the slightest preference as to what institution shall be selected with which to connect the agricultural college, my convictions are very decided that it is expedient to adopt some of them.' And now, in 1865, the commissioners came to the front with the recommendation to connect with Bowdoin College. On the other hand, the State Board of Agriculture, an organization of great influence, arrayed itself strongly in opposition to connection with any existing institution.

"It had resolved in 1863, 'that the college indicated by the act of Congress is essentially unlike either of the existing colleges in the State,' * * * and that it 'should not be incorporated with any of the existing institutions of the State.'

"The board maintained this position without wavering, through all the discussions that followed, and was supported by all the leading agriculturists of the State. Its most powerful ally, however, was the *Maine Farmer*, which had a large circulation, and was edited by the veteran, Dr. Ezekiel Holmes, who bore a conspicuous part in the discussion that followed before the joint special committee on agriculture. Waterville College appeared before the committee in the person of its president, Dr. Champlin, with an elaborate proposition to establish a sort of educational circuit, to carry out the purposes of which three professorships were to be established: At Bowdoin, a professorship of chemistry applied to agriculture and the arts; at Waterville, a professorship of engineering, or of mathematics applied to the mechanic and other practical arts; and at Bates, a professorship of agricultural zoology and



EZEKIEL HOLMES

veterinary science, including the anatomy, physiology and pathology of animals. The funds realized by the sale of lands were to be held by the State, and twenty-five per cent. of the income was to be devoted to the support of each professorship. The remaining twenty-five per cent. was to be expended partly to pay cost of experiments and partly to pay for lectures to be given alternately at the three colleges. Such is a brief abstract of the Waterville plan.

“Bowdoin’s plan was presented by its learned and venerable president, Dr. Leonard Woods. Briefly stated, it proposed that the lands granted by the national government should be transferred and assigned in trust to Bowdoin College, that the college should establish an institution separate and distinct from all others—that it should put the institution in operation within the time limited by the act of Congress, and should perform, without expense to the State, all the obligations assumed by it, in accepting said grant. It was to supply all necessary instruction, provide the necessary philosophical and chemical apparatus, cabinets and specimens in geology, botany, mineralogy, and comparative anatomy, and to allow the students the use of the apparatus and collections already belonging to the college, and under certain conditions, the use of the public libraries of the college. It proposed to provide a building equal in style and similar in plan to the Maine Medical College, land for an experimental farm and botanical gardens, a gymnasium, and a campus for military drill. Such, in substance, was Bowdoin’s proposition. In face of the dubious prospects of obtaining funds for the construction of buildings and for other purposes, should the college be established on an independent basis, the proposition was a very tempting one. But it contained

objectionable features, one of which was the inadequate conception of the main purpose of the Land-Grant Act, which was to 'promote the liberal and practical education of the industrial classes.' Bowdoin employs four years in giving to its students a liberal education. In dealing with the students of the prospective college, it proposed to compress all that is implied in the idea of a liberal and practical education into the brief space of a single year's training, and then to arm the boys with a certificate of proficiency, and turn them out upon the world. There was a suggestion of sarcasm in the remark of one of Bowdoin's most prominent professors, when he said that he did not approve connecting the college with any existing institution, but, if the State had determined to bury it, Bowdoin could give it a more decent burial than any other institution in the State. The State was not yet ready, however, to consign it to the hands of undertakers.

"The friends of independency were ably represented before the committee. The sentiment of the board of agriculture had been decidedly adverse to a connection with any existing institution from first to last, and this sentiment had great weight in the final decision. Conspicuous among those who favored an independent institution, were the able Secretary of the Board of Agriculture, Hon. S. L. Goodale; Hon. Phineas Barnes, and Dr. Ezekiel Holmes, editor of the *Maine Farmer*. Dr. Holmes maintained, with great earnestness, that in order to fill in any reasonable degree the measure of usefulness of which it was capable, the institution must be absolutely unhampered by any connection with any existing institution, 'a tub on its own bottom.' In one of his speeches before the committee, he exclaimed, that 'the farmers of Maine, after having

desired this thing so long and waited for it so long, were not now going to sell their birthright for a mess of pottage.' At the close of the last of several hearings, the committee voted to report in favor of establishing an independent institution. A bill for its organization had been carefully and ably prepared by Hon. Phineas Barnes of Portland, which was also reported.

"When the report of the committee reached the legislature, a recess of half an hour was taken by both branches to enable each county delegation to select a suitable person to represent its county in the board of trustees. The persons selected were Samuel F. Perley, N. T. Hill, Bradford Cummings, Thomas S. Lang, Dennis Moore, Wm. D. Dana, S. L. Goodale, Robert Martin, Alfred S. Perkins, Joseph Farwell, Seward Dill, Joseph Day, Ebenezer Knowlton, Hannibal Hamlin, Chas. A. Everett, and Wm. Wirt Virgin. These names were inserted in the first section of the Organic Act, and the bill passed both branches in due course, and received the approval of Governor Cony. The first meeting of the trustees was held at the State House in Augusta, on the 25th of April, 1865, and the board was organized by the choice of S. L. Goodale, Clerk. The Organic Act was adopted. Hannibal Hamlin was chosen President of the Board, and Phineas Barnes, Treasurer.

"The limited time assigned me forbids a history in detail of the proceedings of this Board of Trustees. It entered upon the discharge of its duties under conditions of the most discouraging character. The State had placed no funds at its disposal for the construction of buildings and other necessary purposes. It made an earnest appeal to the public for contributions, but the public did not respond. It had another problem of

great difficulty and delicacy to deal with, that of location. With reference to this it examined lands at Togus and Topsham, the Taylor farm at Fairfield, the Nourse farm at Orrington, and the White and Frost farms at Orono. The western members had a very decided preference for Topsham. At a meeting of the board held at Augusta, September 14, 1865, a motion to locate the college at Topsham was lost by a vote of six to five. At a meeting at Augusta, January 25, 1866, the board voted to locate at Orono, the vote standing eight in favor to seven in opposition. (The members voting in favor were Messrs. Hamlin, Hill, Cummings, Moore, Farwell, Day, Woodman, and Everett, and those against were Messrs. Perley, Dillingham, Goodale, Martin, Perkins, Dill, and Virgin). The location decided on was largely due to the personal exertions of Hon. Wm. P. Wingate, afterwards a trustee of the institution. This result was a fatal blow to the harmony of the board. Some of its most prominent members believed that Topsham presented a broad range of advantages of great value, many of which the farm at Orono lacked. From the day the location was decided in favor of the latter place, the cohesion of the membership of the board weakened, and its disintegration began. At its last meeting held at Augusta, January 29, 1867, the following petition was signed by all members present, ten in number:

'The undersigned, Trustees of the State College of Agriculture and the Mechanic Arts, respectfully represent that, in their opinion, the number of the members of the Board should be less than it now is, and ask that the number be reduced to not less than five or more than seven. They would suggest that the new board of trustees be appointed by the Governor and Council, and

with regard to fitness rather than locality. They also indicate their readiness to retire from the position now held by them for the purpose above indicated.'

"The petition was promptly responded to by the legislature, and a bill embodying its request was passed.

"The original board of trustees having retired, a new chapter of incidents, of successes and reverses, opened in the history of the inchoate institution. It required several years to determine whether the struggle would terminate in success, further postponement or irretrievable disaster. The Organic Act had been amended so as to reduce the number of trustees to seven, to be appointed by the governor, subject to the approval of the executive council. The names of the new board were announced in April, 1867, and were as follows: Samuel F. Dike of Bath, Abner Coburn of Skowhegan, Lyndon Oak of Garland, Isaiah Stetson of Bangor, William P. Wingate of Bangor, George P. Sewall of Old Town, and Nathaniel Wilson of Orono, five of the number residents of Penobscot county. In these appointments, two of the recommendations of the retiring board had been complied with. The membership had been reduced to seven, and the appointments made with reference to convenience of locality. The organization of the new board was effected at Bangor, April 24, 1867, by the choice of Abner Coburn, president, S. L. Goodale, clerk, and Isaiah Stetson, treasurer. That the trustees sought the services of a clerk outside of their own number, was due to their earnest desire to avail themselves of the valuable counsels of the man who had given the new educational scheme much careful thought and earnest study, and whose ideal of its possibilities was very high. In his report of 1863, as secretary of the board of agriculture, he expressed the

following views: 'It is rare that any subject of greater magnitude calls for legislative deliberation. Upon the action which this receives, depends in large measure, not only the extent and degree to which agricultural knowledge shall be disseminated among the farmers of the State, but also the degree of progress which shall be made in all the arts of life; the future development of our untold natural resources; in a word, the productiveness of our whole domain, and its position and power as a State. Only questions pertaining to the existence, integrity and honor of our common country, take higher rank. May infinite wisdom guide deliberations to the best possible results.' It was an occasion for regret to the trustees that Mr. Goodale declined the position tendered him.

"The new board of trustees entered upon its duties under numerous and serious disadvantages—a majority of its members had given the new educational scheme but little thought or study; when they came together the first time, they came as entire strangers to the views of each other in relation to the matter in hand; there was but little in the experience of the past to guide them; the results sought were far different from those attained by existing institutions, and could be reached only by different methods; there were no models for imitation; institutions in other States having an origin in common with our own, were, like ours, groping in the dark. On the other hand, there were favoring circumstances—the difficult and vexatious question of location had been settled; the board of trustees had been reduced to a small and compact body; the theory that the money needed for the construction of buildings and for ordinary current expenses could be raised by subscription had been exploded, and the State had placed \$20,000 at the disposal of the new board."

From other portions of the address by Hon. Lyndon Oak and from other sources, the following facts are gleaned as belonging to this period, that is, the period immediately preceding the opening of the institution to students.

From the report to the Maine Legislature, bearing date February 8, 1867, it appears that in April, 1866, Dr. James C. Weston of Bangor was unanimously elected Secretary of the Board of Trustees and that John H. Gilman, Esq., of Orono, was elected Farm Manager from April 1866 to April 1867. Mr. Gilman represented the Orono class in the Maine Legislature in the winter of 1867. At a meeting of the Trustees in Bangor, September 26, 1866, Hon. W. A. P. Dillingham of Waterville was chosen President of the Board to succeed Hon. Hannibal Hamlin, resigned.

In the same report the President of the Board of Trustees, gives credit to citizens of Bangor for "the handsome sum of \$14,000" contributed in aid of the new college.

The last act of the Board of Sixteen, made up of one representative from each county, was to elect Hon. Phineas Barnes of Portland, President of the College and vote him a salary of three thousand dollars a year. Mr. Barnes' acceptance was never received.

On May 16, 1867, the new board of trustees, seven in number, recently appointed by Governor Chamberlain, made their first visit to the site of the new college. They found this site not unattractive. It embraced 370 acres of land affording a variety of soil for experimental purposes, and bordering on the Stillwater River, one mile from the pleasant village of Orono and nine miles from the thriving city of Bangor.

This farm, originally consisting of two farms, now

united into one, was purchased for \$11,000 by the towns of Orono and Old Town and given to the State by warranty deed in April, 1866.

On this site the trustees found two sets of farm buildings much out of repair. These they proceeded to renovate and make useful, one for the first professor, the other as a temporary residence for the farm superintendent. It may be of interest to add that one set of the buildings referred to was on the site of the present Beta House and the other on the site of Mount Vernon House.

In looking forward to the construction of college buildings, one of the leading members of the original Board of Trustees invoked the professional aid of the distinguished landscape artist, Frederick Law Olmsted of New York, to determine "the location, number, style and internal arrangement of the contemplated buildings," * * * and "to construct a complete and exhaustive ground plan of arrangements."

From Mr. Oak's record, we find also that "another professional artist had been employed to make a topographical map of the farm. The report of Mr. Olmsted and the topographical map were among the inheritances of the new Board. The report was able and elaborate. It contained valuable suggestions of which the Board was glad to avail itself, but it proposed to establish the College on an essentially military basis. At a remove of only two years from the close of the war, Mr. Olmsted's plan met with considerable favor, but the trustees believed that, with the subsidence of the military spirit, the mode of life prescribed by this plan would become irksome and finally impracticable."

Suffice it to say, the Olmsted plan was not followed when the time came for the actual construction of buildings.



WHITE AND FROST HOUSES

The first building erected for college purposes was in 1867-8 and was early known as White Hall but subsequently as Wingate Hall. It was a three-storied frame building, semi-gothic in style, containing eighteen rooms, six on each floor, and presenting a fine appearance. It served the institution most satisfactorily for twenty-two years, but unfortunately was burned in 1890. On its site, the present Wingate Hall was later erected.

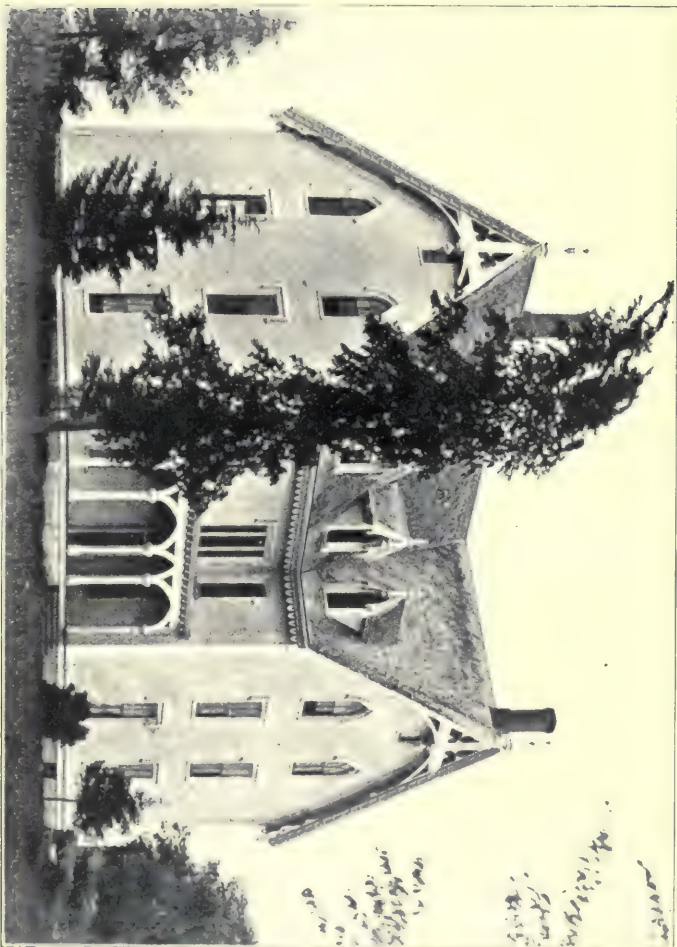
Notwithstanding the fact that White Hall, built of wood, promised to be entirely satisfactory and so proved subsequently, the trustees decided that the future principal college buildings should be constructed of more enduring material. Accordingly, before the end of the year 1867, preparations were made for the manufacture of bricks on the college farm for the next building needed.

For the situation, as it presented itself to the trustees in the early part of the year 1868 a few months prior to the opening of the college, we must still be indebted to Mr. Oak's dedicatory address given in 1888, or twenty years later. From this address the following passage is quoted:

"The year 1868 did not open auspiciously upon the fortunes of the struggling institution. Ominous clouds threatened its future. Adverse criticism had been freely indulged in by those who had exhibited, in previous years, much interest in the new educational movement. Governor Chamberlain had evidently been much affected by the volume of such criticism. His allusion to the college, in his message at the opening of the legislative session, was apologetic and deprecatory in tone, and was not in the highest degree complimentary to the board of trustees of his own appoint-

ment. He said: 'In reconstructing the board of trustees in accordance with the act providing for the same, it was found difficult to induce gentlemen most naturally suggested, to accept the position.' In their report to the legislature, the trustees asked for \$20,000 to build a chemical laboratory and for current running expenses. In answer to this, the Governor recommended the expenditure of the balance of the previous year's appropriation on a cheaper building and warned against 'errors which have well-nigh ruined similar institutions in other States.'

"The annual session of the board of agriculture opened soon after. That body had, from the first, exhibited great friendship for the college, and was still relied upon for influential support. The management of the trustees came up early—not, however, for friendly consideration, but sarcastic criticism. The report of Ex-Governor Coburn, as president of the board, was a concise and accurate statement of the progress that had actually been made, and a presentation of the immediate wants of the college. This report was severely criticised, both for sins of omission and commission. It omitted the discussion of the profound problems involved in the new educational scheme. The Ex-Governor was not in the habit of dealing in 'sounding manifestoes,' but if the college had occasion to borrow \$10,000 to meet a pressing exigency, he would give his name to a note for that amount with as much apparent indifference as in ordering steak for breakfast, and his promise to pay would always bring the money without regard to the amount. But the word 'dormitory' unfortunately slipped into the report, and that obnoxious term was not often found 'except in connection with a scholastic college or a convent, or something



WHITE HALL.

else of monastic origin.' The fear was that the new institution was to be run in old grooves. But to anticipate a little, the board of agriculture took the initiative a year later, in measures to bring the two institutions into harmonious working relations, and it has maintained a spirit of friendly coöperation from that time to the present. It may be safe to assume that the temporary hostility of the board was due mainly to the keen disappointment that followed the location of the college at Orono, instead of Topsham.

"In the face of adverse influences that assailed the college at the opening of the legislative session of 1868, the prospect of a favorable response to the application for an appropriation of \$20,000 was not inspiring. The legislative committee gave the trustees several hearings, and many recommended the appropriation asked, but the legislature at first seemed likely to turn the college away with nothing. But it had earnest friends in both branches; conspicuous among them was Hon. A. M. Robinson of Dover, of the House, who did effective work for the institution. An appropriation of \$10,000 was finally granted. Having prepared a home for a limited number of students the preceding year, the next object of attention was the construction of a chemical laboratory.

"It was generally conceded that thorough training in Chemistry should be a prominent feature of the college, on account of its close relations to agriculture and the manufacturing interests of the country."

With the national endowment act accepted by the Maine Legislature, with the question of dependency upon some other college or independency for the new institution settled, with the question of location also settled, with one college building erected, and another

under consideration, with certain financial aid from the generosity of individuals, from the towns of Orono and Old Town, and from the State, the last named in two appropriations amounting to \$30,000, it became the duty of the trustees, in a specific way to realize the purpose of the Organic Act by opening to students the new institution designed to do its part "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

To what extent this purpose has been attained will appear in the subsequent chapters of this history.

CHAPTER II

ADMINISTRATION OF MERRITT CALDWELL FERNALD, A. M. *Acting President 1868-71*

THE writer, as Professor of Mathematics, entered upon duty for the Maine State College of Agriculture and the Mechanic Arts, July 15, 1868. Samuel Johnson, A. M., began his work for the institution as Farm Superintendent on the same date. Both Mr. Johnson and myself were graduates of Bowdoin College; and although we had never met before, we soon found ourselves congenial associates in the same enterprise. We little realized to what development in future years our modest pioneer work would lead.

We found, on what we may at once call the Campus, the buildings referred to in the preceding chapter, namely, two sets of farm buildings and one college hall, not then named, but subsequently called White Hall and later still Wingate Hall. The last named building, as already stated, was a substantial wooden structure containing eighteen rooms on the site of the brick building now known as Wingate Hall.

The farm buildings, consisting of house, ell, and two barns, on the site of the present Mt. Vernon House, were assigned by the trustees to Mr. Johnson, the Farm Superintendent. The other set of farm buildings, or more strictly the house connected with it located on the site now occupied by the Beta House, was assigned to the writer for immediate residence and served as home

for himself and family for ten and a half years. After years of other service, this house was removed to a new location and is now occupied as a dormitory for women students, under the name of North Hall.

On the lower floor of the new building, Wingate Hall, one room was selected for the President's office, three rooms for general or class purposes, and the remaining fourteen rooms were reserved for students.

The first service to which the newly elected officers were called is shown by the following extract from the records of the trustees at a meeting held at the Penobscot Exchange, in Bangor, July 2, 1868: "Voted: That M. C. Fernald and Samuel Johnson be requested to enter upon their services the middle of July present; that they arrange the course of study to be pursued in the College, the requirements for admission to the same, etc., etc.

"Voted: That Messrs. Dike, Lang and Oak be a committee to act with Messrs. Fernald and Johnson, in the performance of the duties embraced in the foregoing vote." The trustees referred to were Rev. Samuel F. Dike of Bath, Hon. Thomas S. Lang of Vassalboro, and Hon. Lyndon Oak of Garland, all able and efficient members of the Board. At that date few colleges existed in the United States organized in harmony with the requirements of the organic act or what was then termed, the New Education.

Hoping to profit by the experience already gained at some of these new institutions, the writer promptly visited, with other colleges, the State Agricultural College at Amherst, Mass., and the State Agricultural College at Lansing, Michigan. From these institutions he received suggestions of great value in the work of outlining a course of study for the State College of

Maine, especially in regard to the labor problem for students, or rather the problem of combining theory and practice, a prominent feature of the new institution.

As a convenient point of meeting for the members of the committee on a course of instruction, Newport was selected. It is an item of history worth recording that at the Shaw House in the village of Newport the first course of study for the Maine State College was arranged, definitely for the first year, and in general terms for four years. This committee meeting required the full hours of a day, but before its conclusion, arrangements had been made to advertise the opening of the new college and the conditions of admission to the first class.

On September 21, 1868, twelve young men satisfactorily passed the required examinations and were admitted to the pioneer class. Later in the autumn one more student entered, and in the spring following four more, and later still one was admitted to advanced standing, so that the class numbered in all eighteen. Of these, six came to graduation in 1872, and twelve have been regarded as non-graduates.

The evolution of a course or courses of study along new lines was approached somewhat cautiously, in order, as has been suggested, to make available the experience of other institutions engaged in the solution of the same problems.

Accordingly, in the first catalogue issued, the course of study was made definite for but one year and was expressed in only general terms for the three remaining years. In the second catalogue, the definite statement covered two years; in the third catalogue, three years; and in the fourth catalogue, four years, or the full course. By this date, as a matter of fact, four full

courses had been evolved, namely, in Agriculture; in Civil Engineering; in Mechanical Engineering; and in addition to these, one known as the Elective Course.

The first catalogue was issued in December, 1868. It is interesting to note that, even at that early period, the lines of development of the new institution had been somewhat thoroughly thought out. As time went on, these lines, necessarily, underwent modifications, but not out of harmony with the fundamental ideas which have constantly served for guidance.

By way of illustration of the above statement, the following quotations are made from the first catalogue:

“DESIGN OF THE INSTITUTION

“The State Industrial College proposes to give to the young men of the State who may desire it, at a moderate cost, the advantages of a thorough, liberal and practical education. It proposes to do this by means of the most approved methods of instruction, by giving to every young man who pursues the course of study, an opportunity practically to apply the lessons learned in the class-room, and by furnishing him facilities for defraying a portion of his expenses by his own labor.

“By the Act of Congress donating public lands for the endowment and maintenance of such colleges, it is provided that the leading object of such an institution shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts.

“While the course of study fully meets this

requirement, an is especially adapted to prepare the student for agricultural and mechanical pursuits, it is designed that it shall be also sufficiently comprehensive and of such a character as to secure to the student the discipline of mind and practical experience necessary for entering upon other callings or professions."

"LABOR

"It is a peculiarity of the Industrial College that it makes provision for labor, thus combining practice with theory; manual labor with scientific culture. Students in this institution are required to labor a certain portion of each day, not exceeding three hours, for five days in the week.

"The labor is designed to be, in the fullest sense possible, educational. To illustrate: When the members of a class are pursuing Botany, they will work in the gardens and orchards, under the direction of the Professor of Horticulture, thus rendering themselves familiar with the various forms of hand labor, and the various processes necessary for the successful prosecution of this art; and when they have become proficient in this department, their places will be supplied with others, and they will engage in some other form of labor until they have acquired skill and proficiency in the new department, when other changes will be made, until every student shall become familiar with all the forms of labor upon the farm and in the garden and workshops.

"Students will learn the use of tools and

acquire a fitness for mechanical pursuits, under competent instructors in the workshops to be provided for the study and practice of the Mechanic Arts."

As regards the first quotation, relating to the "Design of the Institution," sufficient comment has already been made.

Regarding the second quotation, referring to the "labor" problem, it should be stated that while for a few years the system of paid labor for students was strictly adhered to, yet as facilities for practical instruction increased and the number of students increased, most forms of student labor came to be purely educational, and hence remuneration in money for such labor was in time discontinued. In other words, with the change of conditions, a change of system was not only necessary but justified. Another quotation from the first catalogue serves to show the effort not only to keep the expenses low but to furnish or suggest the way of meeting them, an adaptation to students of moderate means.

"EXPENSES AND MEANS OF DEFRAYING THEM

"Tuition is free to students from all parts of the State. Those from other states will be charged twelve dollars per term.* Room rent is free, and each room is furnished with a bedstead, mattress, table, sink, and four chairs. All other bedding and furniture must be supplied by the students, who will also furnish their own lights.

"Three dollars per week will be charged for

*Three times a year of thirteen weeks each.

board and fifty cents per week for washing and fuel. Students receive compensation for their labor according to their industry, faithfulness, and efficiency, the educational character of the labor being also taken into account. The average amount paid will be about twenty-five cents for three hours' labor.

"The terms are so arranged that the long vacation occurs in the winter, that students may have an opportunity to teach during that time. By means of the amount thus earned, together with the allowance for labor, the industrious and economical student can cancel the greater part of his college expenses."

The statements just given held true for a period of years. Time, however, has wrought important changes in the matter of tuition, of the renting and furnishing of rooms, of the labor features, of the length of terms and the number in a year, and in the time of the long vacation.

This portion of the record for 1868 would be incomplete without the names of the trustees and of the officers of the Board at that date, and also of the officers of instruction.

TRUSTEES

Hon. Abner Coburn of Skowhegan, President
Hon. William P. Wingate of Bangor
Hon. Nathaniel Wilson of Orono
Hon. Nathan Dane of Alfred
Rev. Samuel F. Dike of Bath
Hon. Lyndon Oak of Garland
Hon. Thomas S. Lang of Vassalboro
Samuel Johnson, A. M. of Orono, Secretary
Hon. Isaiah Stetson of Bangor, Treasurer

FACULTY

Merritt C. Fernald, A. M., Acting President and Professor of Mathematics and Physics.

Samuel Johnson, A. M., Farm Superintendent and Instructor in Agriculture.

It is interesting to recall that at the opening of the College, the equipment of apparatus, consisting of physical geography charts and a few pieces of physical apparatus, all stored in the president's room in White Hall, was of the value of \$141.65. I think we took as much pride in that modest equipment, as we should take today in ten thousand dollars' worth of apparatus. Relatively it may have been quite as important and valuable. In the first year, the value of the physical apparatus was increased more than ten-fold.

In December, 1868, the writer commenced a record of meteorological observations at the College which were continued by him to the middle of the year 1893. This record, extending over a period of nearly quarter of a century, is preserved in two large volumes now in the University Library. Similar meteorological observations, with but a brief interruption, have been continued to the present time, thus extending the period to more than forty-five years. Such observations for scientific purposes become increasingly valuable with the length of time which they cover.

The affairs of the new college ran on without special incident during the autumn of 1868. The winter of 1869 was characterized by two events destined to have an important bearing upon the future interests of the College, the one in a favorable way and the other in a way at least temporarily unfavorable.

Early in the legislative session of 1869, a conference between the State Board of Agriculture and the Board



JOSEPH C. BURNS

of Trustees of the College resulted in the establishment of a better understanding and more harmonious relations than had hitherto existed between the two boards.

In virtue of these cordial relations, a bill was introduced into the Legislature, the important feature of which was to constitute the Secretary of the Board of Agriculture a trustee of the College, *ex-officio*. This bill became a law and thus during twenty years "the ripe experience and valuable councils" of Hon. S. L. Goodale, Hon. S. L. Boardman, and Hon. Z. A. Gilbert, in succession, were brought to the aid of the College. The other event referred to was temporarily unfortunate in that it brought embarrassment to the trustees and solicitude to all friends of the College at an early and perhaps critical period of its history.

Reference has been made in the preceding chapter to the generosity of the towns of Orono and Old Town, in raising and contributing to the State the sum of \$11,000 for the purchase of the White and Goddard farms in Orono, as the site of the College. In the deed of conveyance of these farms to the State (doubtless with the thought of safeguarding all interests), a reversion clause was inserted in virtue of which the diversion of the property to any other use than that indicated in the deed would work its forfeiture, and in that event said property would revert to the town of Orono. This clause was not satisfactory to the State. Accordingly, when the Legislature early in 1869 appropriated the sum of \$28,000 for the benefit of the College, it inserted in the resolve carrying the appropriation this provision or condition, "that in case the location of said college shall be changed from Orono, or be abandoned or cease to be used for the purpose contemplated by the act establishing said college, then

in such an event, the State shall refund to the inhabitants of Orono the sum originally paid for said lands, viz., \$11,000." By many of the citizens of Orono, this proviso was construed as indicating a design for the possible removal of the College. While this interpretation was unfounded, as future events proved, it nevertheless produced these harmful results: The required change of title was not secured in 1869, the money appropriated to the College could not be drawn but reverted to the State Treasury, and the work of construction planned by the trustees had to be postponed for a whole year.

Early in 1870, the legislature appropriated again for the College the sum of \$28,000, with \$22,000 additional, making the total appropriation \$50,000, but all conditioned on the same change of deed as was required the previous year. Happily, before the close of 1870, favorable action had been taken on the part of the town, the necessary change of title had been made, the money had been drawn, and the work of construction of needed buildings had been resumed by the trustees. The \$50,000 thus put at their disposal went a long way toward the completion of the Chemical Laboratory, now known as Fernald Hall, and toward the construction of what is now known as Oak Hall and the boarding house connected therewith, the latter now occupied by the English Department, under the name of Estabrooke Hall. The work of the year 1870 included also "a thorough drainage of the land that constitutes the building sites and the slope in front; the manufacture of 500,000 bricks upon the college grounds for building purposes * * * the clearing and grading of grounds, and the construction of the carriage-way that passes the main college buildings." The work of this year went far



FERNALD HALL.

toward settling one question which had been from the first a disturbing element. It was becoming more and more evident that the College had been located to stay and that Orono was to be its permanent home.

From the address of Hon. Lyndon Oak, previously referred to, it appears that in 1871, "the buildings left incomplete the previous year were finished and made ready for use. The boarding-house was opened and placed in charge of Rev. A. W. Reed." To this time, since the opening of the college, the students had boarded in the family of the farm superintendent, living at that time on the site of the present Mt. Vernon House.

During the period under notice, the work of instruction had been fully maintained. It will be remembered that at the beginning, Mr. Johnson gave instruction in farm processes, while the writer attended to the duties of the class-room. As students and classes increased, the manner in which the demands of instruction were met is clearly shown by the following extract from an article published in the *New England Magazine* for April-May, 1887:

"One of the memorable events of the first year was a course of lectures on physiology and hygiene by the late Dr. Calvin Cutter of Massachusetts. At the beginning of the second year, Stephen F. Peckham, A. M., of Rhode Island, a graduate of Brown University, was added to the faculty in the capacity of Professor of Chemistry, and a little later, Mr. John Swift, a graduate of the Agricultural College of Michigan, came as Instructor in Botany and Horticulture."

In the formative period of the College before the several departments were filled with permanent officers, lecturers were called in as occasion arose to give in-

struction on special topics. Additions were thus frequently made to the corps of instruction, so that by the close of 1870 no less than twelve different persons were connected, in one capacity or another with the Faculty, as shown by the catalogue issued with the college report for that year. The catalogue bears the date January, 1871. From it the following list of instructors is copied:

FACULTY

Merritt C. Fernald, A. M., Acting President and Professor of Mathematics and Physics.

Samuel Johnson, A. M., Farm Superintendent and Instructor in Agriculture.

Stephen F. Peckham, A. M., Professor of Chemistry.

John Swift, B. S., Instructor in Botany and Horticulture.

Mrs. Mary L. Fernald, Instructor in French and German.

Calvin Cutter, M. D., Lecturer on Anatomy, Physiology, and Hygiene.

Corydon B. Lakin (Principal of Commercial College, Bangor), Instructor in Bookkeeping and Commercial Forms.

X. A. Willard, A. M., Lecturer on Dairy Farming.

A. S. Packard, Jr., M. D., Lecturer on Useful and Injurious Insects.

James J. H. Gregory, A. M., Lecturer on Market Farming and Gardening.

Professor E. S. Morse, Lecturer on Comparative Anatomy and Zoology.

Capt. Henry E. Sellers, Instructor in Military Science and Tactics.

Passing in review the three years from 1868 to 1871, it is safe to say that they constituted one of the most trying and critical periods in the history of the institution. At their close, questions of title and of perma-



OAK HALL,

nency, which had been so embarrassing to trustees and faculty, were now happily questions of the past. A new and more auspicious era seemed to be dawning upon the struggling college. At this point in its history, the writer, who, chosen to a professorship, had served also as Acting President during the three years under notice, requested relief from the executive duties. This relief was granted; and the opening of the next college year in August, 1871, marked the beginning of a new administration.

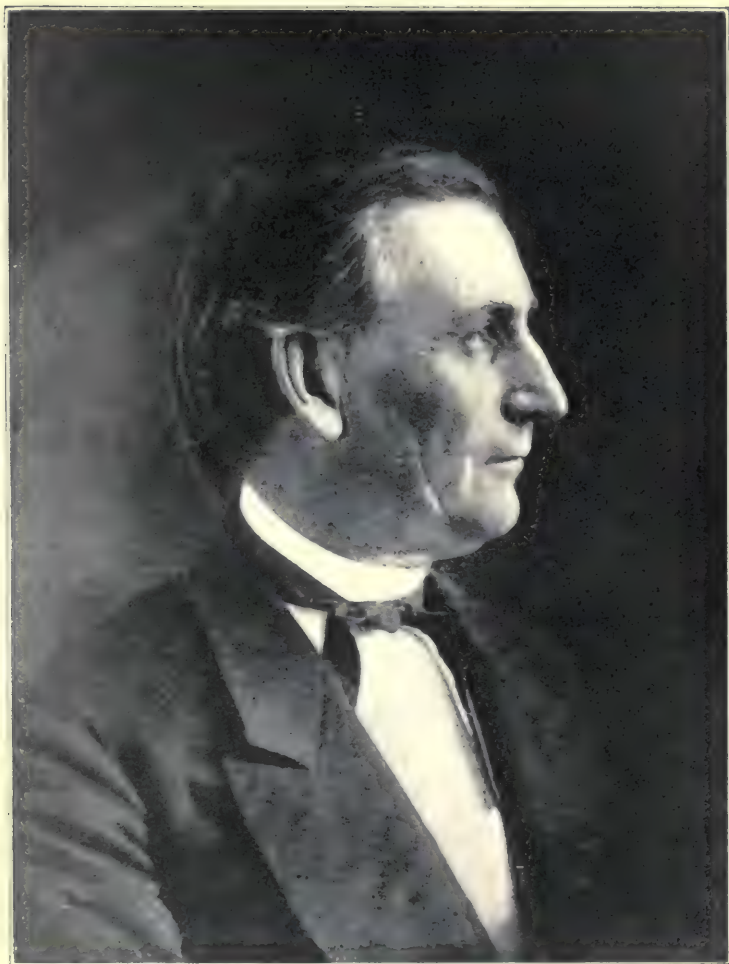
CHAPTER III

ADMINISTRATION OF
REVEREND CHARLES FREDERIC ALLEN, D. D.

President, 1871-1879

CHARLES FREDERIC ALLEN was born in Norridgewock, Maine, January 28, 1816. He was graduated from Bowdoin College in 1839, receiving the A. B. degree which was followed three years later by the A. M. degree. In 1872, he received the degree of Doctor of Divinity from both Bowdoin College and Wesleyan University. Directly after his graduation, he devoted a few years to teaching; but the larger part of his life, exclusive of the years devoted to the Maine State College, was given to the ministry in the Methodist Episcopal Church. Through a long period of years, he held important pastorates in many of the prominent towns and cities of his native state, at one time serving four years as Presiding Elder in the Lewiston district. Dr. Allen died at Portland, Maine, February 9, 1899, beloved and honored by all who knew him.

Dr. Allen brought to the College generous culture of mind and heart and an earnest purpose to strengthen and elevate its growing departments. His presidency extended from August, 1871, to the close of the year 1878, and was one of advancement and prosperity to the College, notwithstanding it was beset at times with obstacles difficult to overcome.



CHARLES FREDERICK ALLEN

The reorganized faculty as it existed August 31, 1871, is herewith given:

Rev. Charles F. Allen, A. M., President and Professor of English Literature and Mental and Moral Science.

Merritt C. Fernald, A. M., Professor of Mathematics and Physics.

Robert L. Packard, A. M., Professor of Chemistry, French, and German.

William A. Pike, C. E., Professor of Civil Engineering.

Charles H. Fernald, A. M., Professor of Natural History.

Joseph R. Farrington, Farm Superintendent.

X. A. Willard, A. M., Lecturer on Dairy Farming.

James J. H. Gregory, A. M., Lecturer on Market Farming and Gardening.

Capt. James Deane, Military Instructor.

John Perley, Instructor in Bookkeeping and Commercial Forms.

The settled condition of the affairs of the College favored development along many lines.

Reference has been made to the four courses of study early established. To these was added in 1874 a Course in Chemistry; and in 1876, the Elective Course was changed to a Course in Science and Literature. Thus in Dr. Allen's administration, the several courses included Agriculture, Civil Engineering, Mechanical Engineering, Chemistry, and Science and Literature.

The number of students in the early years was necessarily small. At first young men apparently came not so much for a completed course of study as to add one or two years to their school life. This tendency, however, soon passed away. A much more important factor affecting attendance during the pioneer period was the policy of the Legislature toward the College,

whether liberal or illiberal; and I may add as another factor the general sentiment in the State respecting it. In other words, attendance was responsive, in a large degree, to meager or generous appropriations for the College, to the imposing of tuition or the remission of it, to adverse criticism or kindly comment, and to the general financial status whether of thrift or the reverse. To put the thought in other language, the College was the adopted child of the State, and for its sustenance and growth, it was dependent year by year upon the varying moods of the State, as reflected by the Legislature. As these moods fluctuated, so did the number of students, at least for the first twenty years, appropriately designated the "pioneer period." The highest figures of attendance in Dr. Allen's administration were attained in 1874-5 when the number of students catalogued was 121. Important as numbers are to an institution of learning, they were regarded at that time as of secondary consideration. Looking to the long future, the matter of prime importance in the mind of Dr. Allen and of those associated with him was the building of the College so strong in its equipment and so thorough in its instruction, that it should be worthy of its name, worthy of the State, and worthy of the support and patronage of her citizens. Time has seemed fully to justify their outlook and their effort.

In 1872, by statute law, the Maine State College was made coeducational. If I mistake not, Dr. Allen was largely instrumental in bringing about this result. The first woman student to avail herself of the new opportunities was Miss Louise Hammond Ramsdell of Atkinson, Maine. She set a worthy example in scholarship and in true womanly propriety and dignity for all the women students who should come after her.

At her graduation, President Allen said of her, "She sustained a rank equal to any in her class, and during her whole college course she never missed a recitation or college exercise on account of her health." The coeducational feature of the institution will be presented more fully in a special chapter.

In 1872, the first exercises of graduation were held in the Methodist Church. Six young men of the eighteen connected with the first class received diplomas. The ceremonies had the impressiveness of novelty and marked a really important event in the college history. Before the building of the first town hall in 1874, the churches in the village of Orono kindly opened their doors for the principal college exercises. Subsequently, for many years the town hall served for the larger and more important college functions, until rooms of sufficient capacity were available on the college campus.

As early as 1873, a system of coöperative government was established whereby certain regulative or disciplinary powers were granted to a Council made up of representatives of the student body. As first arranged, the Council, which was the chief executive body on the part of the students, consisted of four members, one chosen from each class. Its officers were a president and a secretary. As aids to the Council, committee-men were selected from the college dormitories. Under this simple form of organization, the system was maintained for thirteen years, when slight revisions of it were made, to adapt it more perfectly to the changed conditions in fraternity and dormitory life.

The underlying idea was to deepen the sense of responsibility for conduct on the part of the student body, and to make all members of it self-governing to

the largest extent possible. To this end, disciplinary power was conferred on the Council to the extent that it proved itself efficient. There was no surrender of governmental authority, but a delegating of it so long as, and to the extent that, it was judiciously and satisfactorily used. With this understanding, a pride of worthy achievement naturally developed in the Council, and a spirit of fair-mindedness characterized its proceedings.

In 1890, the writer presented to the National Educational Association, then in session in St. Paul, Minnesota, a paper on the subject of "Coöperative Government." This was after an experience and observation of the system for seventeen years.

In the statement of results, among others, the following points were made: "It has contributed to a better understanding and to more harmonious relations between the faculty and students than otherwise could have existed; it has rendered discipline easier and more effective; it has prevented misdemeanors, and when they have occurred, it has disposed of the cases in the main satisfactorily, without the intervention of the faculty; and, most essential of all, it has developed in students the principles and habit of self-government, so important at all periods and in all the relations of life."

The fact that, with certain minor modifications, the system has been retained for forty-two years in this institution and is still in force, is abundant testimony to its value. It is a tribute to the effectiveness of a sense of responsibility in developing the power of self-control.

Reference has been made to the three-term plan for the college year, which generally obtained at the date

of opening the Maine State College. This plan implied study through July, Commencement early in August, a short summer vacation of but three or four weeks, and the long vacation in winter, in order to give students an opportunity to teach. It prevailed until the close of the year 1876, when the two-term arrangement for the college year was adopted. This change was made, in part at least, in deference to the thought expressed by a sagacious professor in a Theological Seminary, to the effect that "with students, no new ideas are ever got in July." July was dropped out as a month for study. Commencement was brought forward from early August to the last of June; the summer recess was a little lengthened and the winter vacation a little shortened, but with the opportunity still retained for students to teach in this vacation with only slight trespassing upon the work of the term.

As time went on, and the number of engineering students increased, greater emphasis was laid on the summer as the better or more advantageous working period.

While dealing with this topic of term-arrangements, it is pertinent to add that the two-term plan adopted in 1876, with only slight modifications, obtained for twenty-three years or until 1899. Change was then made to what may be called a one-term plan for the year, divided into two semesters, the second semester beginning immediately on the close of the first. By this arrangement, except for short recesses, the term is practically continuous for the college year, that is, from September of one calendar year to June of the next. Under this plan, Commencement has been brought forward to the first part of June, followed by a long

summer vacation, with the former winter vacation abolished.

The writer has no desire to magnify the difficulties which were encountered in attempting to realize the ideals which the trustees, Dr. Allen, and his associates had formed for the College and for its development along certain specific lines. He prefers rather to emphasize the way in which obstacles were overcome and seeming defeats converted into substantial victories. A striking illustration is furnished by the manner in which shop-instruction was introduced as a part of the practical training in the department of Mechanical Engineering. The story in part shall be told in the words of that honored member of the Board of Trustees, already several times quoted: "The trustees had from the time of opening the institution earnestly desired to introduce a system of shop-instruction and practice, but such provision would involve an expenditure for suitable buildings, machinery and tools, which they could not hope to meet for many years to come.

"In 1876 an avenue to the realization of this desire was suddenly and unexpectedly opened. At the Centennial Exposition, held at Philadelphia, the Russian government made an exhibit of the Russian system of shop-work instruction and practice. The features of this system which commended it to practical educators were its simplicity, comparative inexpensiveness and wonderful adaptation to the ends desired. Under the lead of President Runkle of the Boston School of Technology, that institution adopted it in the autumn of 1876, and put it to practice without delay. By recommendation of Prof. W. A. Pike, himself a graduate of the institution just named, the trustees of the State College voted to adopt it. The Boston Institute of Tech-



THE CAMPS IN 1871

nology was the first public institution in this country to adopt the system, and our own State College was the second."

Having taken this preliminary step the trustees petitioned two successive legislatures for money to build and equip the shops necessary to carry the Russian system of shop-instruction into practical effect, but with no favorable response from these legislative bodies.

By the opening of the spring term in 1878, after two years' delay, the students in Mechanical Engineering then in the College had become greatly impressed with the importance to themselves of shop-instruction and practice under this system. The trustees were equally anxious that the desired instruction should be given.

In this situation, the officers of the College and the students immediately interested subscribed to a fund to be used for providing necessary equipments. To this fund, Ex-Governor Coburn added \$250, and the proposed system of shop instruction was inaugurated on a very humble scale.

A small, poorly adapted room in the attic of the Chemical Building (now Fernald Hall), a room intended for photographic purposes, was made to answer for a shop. The students made their own benches from lumber furnished them, and supplied voluntarily their own tools and material on which to work, and so the shop for vise-work was opened.

Ex-Governor Coburn, referring in his report as President of the Trustees, to the inaugurating of shop instruction, completes the story now but partially told, in the following words: "The work done by the students under these unfavorable conditions has been pronounced by competent judges creditable in the highest

degree. It was placed on exhibition at the State Fair in Portland and the editor of one of the leading papers in that city said of it—"the vise-work showed the skill of trained artisans."

"A more signal achievement, in some respects, was reserved for the fall term. It having been determined to provide for a course of instruction in forge work (the necessary funds having been pledged), the students on their return at the end of the summer vacation, found ready for use a pile of lumber, a few pieces of damaged steam pipe, and a plot of ground on which to place the building. Being furnished with nails, glass and other materials, they framed, raised and covered a building 41x21 feet, shingled the roof and battened the walls. Failing to receive in season some forges and patent blowers that had been promised them by a friend in Massachusetts, they extemporized forges by making rough boxes and filling them with sand. Pipes were run through the forges to carry the blast. A small engine belonging to the College was placed in position and run by members of the Senior Class in turn." The course of instruction in forge work was thus started in October, 1878.

This record of the introduction of shop-instruction has been given in some detail as an illustration of the resourcefulness which was required, from time to time, to overcome adverse conditions and to lay the foundation for larger achievement later on, along the desired lines. This modest beginning of shop-instruction furnished precisely the educative process needed to open the way for securing the larger and more substantial shops and ampler equipment of later days.

The writer recalls, now after nearly forty years, that the practical good sense and loyalty manifested by the

students involved, won his high admiration, and doubts not that every one of them now living recalls his own part in the introduction of shop-instruction with pride and satisfaction.

Reference has been made to the harmonious relations early established between the State Board of Agriculture and the Trustees of the College and to one important result, namely, the making of the Secretary of the Board of Agriculture *ex-officio* a member of the Board of Trustees. From the cordial attitude of the Agricultural Board toward the College, another result of interest and advantage to the students came about in a decidedly unexpected way. In recognition of the assumed value (which was really actual value) of attendance of the students upon the discussions of the Board of Agriculture, a law of the State was passed requiring the Board to hold at least one session a year in such proximity to the College that the students could attend. That implied Orono or possibly Bangor as the place of meeting for this annual session; and, as a matter of fact, several meetings of the board were held at Orono.

Now it chanced that Ex-Governor Coburn was president of the college trustees, and at the same time was president of the Maine Central Railroad. The law against giving passes is a modern device and did not exist in those days. "Such proximity to the College that the students could attend" as interpreted, came to mean any point in the State where the Maine Central Railroad ran, to which Governor Coburn would furnish the necessary passes. The students usually attended in a body under the organization of the Coburn Cadets, and a single pass in the hands of the commanding officer would generally answer for the company. They visited points in the State as remote as Fryeburg, in attendance

upon sessions of the Board of Agriculture. The same arrangements of transportation sufficed also for attendance upon the State Fairs at Lewiston.

It is hardly necessary to say that the centres visited for attendance upon sessions of the agricultural board always responded with cordial welcome to the students, and with generous hospitality. These excursions were thought to serve a useful purpose for the students and for the College, and they were continued through President Allen's administration and through a part of my own which immediately followed.

In the time of Dr. Allen's administration, the financial condition of the College was such that the President felt compelled to do an amount of teaching which today would be regarded as excessive for such an administrative officer. From his last report as President, I give the larger part of the statement which he makes with reference to the work which he was personally doing in his own department, that of English Literature and Mental and Moral Science. In the subdivisions of college work today he would be regarded doubtless as trenching not a little on the ground of others. His statement follows: "As in former years, I have had charge of this important department of instruction. In the autumn term, the Freshmen study Rhetoric. The regular text-book recitations are accompanied with copious explanations and illustrations by the teacher; and written exercises are required of each of the students. In this way the science is practically applied. * * * Exercises in composition are continued through the whole college course. In elocution, after a short preliminary drill in the elements of vocal culture, all the students have regular exercises in declamation which alternate with their exercises in composition.

Declamations and essays are too important exercises to be passed over without much time and care on the part of the teacher. The especial drill for public occasions is no inconsiderable item in the outlay of time and labor.

"All the Sophomores have recitations in English Literature during the spring term, and the study of American authors is pursued by part of the Juniors in the succeeding term. The intention in this study is to develop a correct literary taste, to direct the attention to the best authors, and to lay the foundation for subsequent profitable reading.

"The Seniors not in the engineering courses study the History of Civilization in the autumn term. The neglect of historical reading, so common among students before they enter college, makes it necessary to supplement the lessons with such lectures on general history as are requisite for the full comprehension of this important study. The same students attend to Mental and Moral Science during the spring term. To all the Seniors, I have given instruction in Political Economy with lectures on Rural Law. During the last part of the autumn term I heard the review of the Seniors in Logic. The brief and comprehensive treatise used as a text-book is of little use without copious illustrations, and the efficient aid of a teacher well versed in the science, and interested in imparting knowledge.

"In addition to the work of a presiding officer and of an instructor in the College, addresses and lectures have been given at agricultural meetings and at other public assemblies, by which a more general knowledge of the value of industrial education, and of the aims and methods of this institution has been extended among the people of the State."

Dr. Allen's fidelity to duty was unbounded. By all who were so fortunate as to come under his instruction whether in the class-room or in public addresses, he is remembered as possessed of rare gifts by nature, and of an interesting, impressive and winning personality. Along moral and religious lines, his influence and example were positive and uplifting forces which have found reflection in many lives.

When Dr. Allen withdrew temporarily from his active ministry in the Methodist Episcopal Church to accept the presidency of the College, it was with the purpose of returning to that ministry in later years. In accordance with this purpose, after a useful service of seven and a half years for the College, he resigned the presidency and resumed the former relation in the Church with which he was connected. As stated in the beginning of this chapter, he passed the remaining active years of his life in the service of the ministry which he loved, and, this service over, he passed on to his final reward, February 9, 1899. Held sacred in memory, "he being dead yet speaketh."



PRESIDENT'S HOUSE

CHAPTER IV
ADMINISTRATION OF
MERRITT CALDWELL FERNALD, PH. D.
President 1879-1893

ON the retirement of Dr. Allen at the close of the year 1878, a temporary vacancy existed in the executive office until March, 1879, when the writer was elected to the presidency.

As will be remembered, he had served the College in the first three years from 1868 to 1871, as Professor of Mathematics and Physics and in addition, as Acting President. His professorship continued through Dr. Allen's administration, in which period several faculty changes had occurred, and the lecturers called in for a temporary service had dropped out.

The new faculty as shown by the catalogue of 1879 was as follows:

FACULTY

Merritt C. Fernald, A. M.,* President and Professor of Physics and Mental and Moral Science.

Alfred B. Aubert, B. S., Professor of Chemistry.

William A. Pike, C. E., Professor of Engineering and Secretary of the Faculty.

Charles H. Fernald, A. M., Professor of Natural History.

George H. Hamlin, C. E., Professor of Mathematics and Drawing, and Librarian.

*Ph.D., Bowdoin, 1881; LL.D., Bowdoin, 1902, and University of Maine, 1908.

Allen E. Rogers, A. M., Instructor in Modern Languages and Military Science.

Whitman H. Jordan, B. S., Instructor in Agriculture.

Timothy G. Rich, Farm Superintendent.

Wilbur F. Decker, B. M. E., Instructor in Vise-work and Forge-work.

At the beginning of the new administration, I wish it could be truthfully said that all conditions were favorable to the development and growth of the College; but precisely the reverse was the fact.

In the interim between the retirement of Dr. Allen and the inception of the new administration, the so-called Greenback Legislature was in session. This legislature not only did not grant a single dollar in aid of the College, but required that tuition should be imposed upon the students, whereas, heretofore, tuition had been free in conformity with the organic law of the State which provided that "No charge shall be made for tuition to any student who is an inhabitant of this State." A very small or nominal charge had been made for students from without the State.

To avoid violation of contract with students who had come to the College under the promise of free tuition, the imposing of the new law was temporarily delayed. Due notice, however, of its imposition was given to students in the College and it was also published in sixteen papers in the state.

The result as regards attendance is referred to in the College Report for 1881 to the following effect: "The loss from previously established classes has been very slight. This fact is regarded as gratifying evidence of the value of the courses of study and of appreciation on the part of students of the instruction given. The effect on the incoming class has been de-

cidedly more marked. The applications received, as early as last April, indicated a probable Freshman Class of fully fifty members. As a matter of honorable dealing, about the middle of April, notices of tuition were sent to applicants for admission who had previously received catalogues advertising free tuition. The Freshman Class numbers seventeen members. Comment is unnecessary."

In a word, the imposing of tuition resulted in reducing the admissions and thereby the number of students in college during a period of years. In time this effect wore away and the number of students correspondingly increased. It will be remembered that in Chapter III four factors were pointed out as operative in the way of increasing or diminishing the number of students, of which tuition was but one.

I am far from claiming as a general proposition that a moderate or reasonable tuition is not just and desirable. My claim is that it would have been great good fortune for the College, in the pioneer period, had the legislature, in its wisdom, deferred the imposing of tuition for just a few years, when the adjustment to it could have been much more easily made.

Another movement, very different in character from that which has just been considered, was inaugurated in 1879. It looked to a modest increase of endowment. The following reference was made to it in the college report for the same year:

"INCREASED ENDOWMENT PROPOSED."

"Hon. Lewis Barker of Bangor has indicated his readiness to give \$5,000 towards a citizens' endowment of \$100,000. Other friends of the College, generous and able, have given reason for the belief that they also

will contribute to it. The value of such an endowment can hardly be overestimated, not only as a means of increasing the efficiency of the institution, but also as a matter of encouragement and appreciation of the effort making for the higher education of the industrial classes. Here is afforded an opportunity for the liberally disposed to make for themselves an enduring memorial, by an act which, constant in its beneficence, shall render equally constant the grateful remembrance it shall secure."

Although this movement received considerable encouragement, and Ex-Governor Coburn subscribed \$10,000 toward the proposed fund, the plan was not pushed to completion in form. The fund, however, was realized later by the gift of one man. Ex-Governor Coburn had the matter very much at heart, and although he had retired from the presidency of the Board of Trustees, through a statute limitation of age, his interest in the College remained unabated. In due time, it was found that the bequest named in his will for the College was for the full amount sought, \$100,000. This benefaction is without restrictions. The interest of this fund can be used for the College at the discretion of the trustees. For the generous donor it constitutes a lasting memorial.

From the record just given, so grateful in remembrance, the writer turns to another attitude toward the College of very different nature. Reference is made to an attempt through legislative action in 1880 to break down the courses of study or at least to reduce them to lower standards.

At that time, it was customary to make the Committee on Agriculture the Committee on the State College. Early in the legislative session of 1880, Mr. L. H.

Hutchinson of Lewiston, a member of the House of Representatives, introduced a resolve joining the Committee on Education with the Committee on Agriculture as the Committee on the State College. This resolve was adopted, thus making a Joint Committee on the College. This innovation was not unwelcome to the friends of the College, until its object came to be known. The leading members of the Committee on Education were recognized as strong and able men who would have great influence not only in the Joint Committee but in the Legislature.

In due time, the Committee visited the College and soon thereafter reported by a bill which disclosed an entirely unexpected attitude toward the institution. In order to make the situation clear, the Act as a whole is herewith given:

"AN ACT CONCERNING THE COLLEGE OF AGRICULTURE
AND THE MECHANIC ARTS

Be it enacted by the Senate and House of Representatives in Legislature assembled, as follows:

Sect. 1. The course of study at the College shall be restricted to three years.

Sect. 2. During the three years, physical geography, arithmetic, algebra, rhetoric, geometry, botany, bookkeeping, chemistry, (general, qualitative, and agricultural) during the entire course, farm implements, trigonometry, free-hand drawing, surveying, with field work, mechanical cultivation of the soil, mechanical drawing, comparative physiology and hygiene, elements of geology, mechanics, physics, vise-work, forge-work, and carpentry.

These studies shall be first and thoroughly taught, without excluding other kindred studies.

Sect. 3. Lectures shall be given during the course at such time as the trustees shall fix, on the following subjects:

First—Stock-breeding and dairy farming.

Second—Characters of soils and rotation of crops.

Third—Veterinary surgery and the care of animals.

Fourth—Useful and injurious insects.

Fifth—Landscape and market gardening.

Sixth—Rural architecture and sheep husbandry.

Seventh—Principles of mechanics.

Eighth—Pneumatics and hydrostatics.

Ninth—Metallurgy.

Tenth—Political and constitutional history of the United States.

Sect. 4. The expenditures of the College shall be limited to the income from invested funds, tuition and private donations.

Sect. 5. The change in the course of study herein provided for shall take place on or before the first of January, 1881.

Sect. 6. All acts and parts of acts inconsistent with this act are hereby repealed.

Sect. 7. The sum of three thousand dollars is hereby appropriated to discharge existing debt of the College.

Sect. 8. This act shall take effect when approved.

It will be observed that this scheme proposed to eliminate, with other branches of study, French and German, the higher mathematics and most of the engineering studies. By the friends of the College, it was believed that if adopted it meant ruin for the institution.

So weighty and influential were the leaders of this movement, that had this Act been pressed to vote at once there is little doubt that it would have been overwhelmingly adopted. There were, however, three days intervening after it was reported before it would come

up for consideration in the House. Active and earnest work had to be done with senators and representatives. Many proved responsive and even anxious to meet the questions at issue with open mind. The counter currents of opinion gained, every hour, in force; and when on the third day, the subject was discussed in the House, it was clearly evident that the plan to overturn the courses of study would be defeated.

As the last speaker in the debate, Mr. L. H. Hutchinson of Lewiston, previously referred to, rose in his place and spoke substantially as follows: "I introduced the resolve by which the Committee on Education was united with the Committee on Agriculture as the College Committee. I did this by request of a fellow-member, as an act of courtesy. I did not understand its purpose then, but I understand it now. The courses of study should be left in the hands of the trustees and faculty. If this legislature can make the courses of study for the College, the next legislature can do the same, and the next, and the next. Thus it could never be known what would be taught at our State College. This would be enough to ruin any institution."

The climax of the argument had been reached, the vote was immediately taken, and one more battle for the College was won—a battle, it is safe to say, in form, it will never be called upon to win again.

Mr. Hutchinson was a graduate of Bates College, a man of fine quality, and the next winter was Speaker of the Maine House of Representatives. Again he did the State College signal service.

Reference has been made to the leaders of the movement above discussed as strong and able men. This they were, and moreover, they were men whose sin-

cerity no one called in question. In the main, they were thoughtful and wise legislators.

Incidentally, this joint committee movement resulted in a change in the make-up of the Committee on the College. Instead of referring its interests to the Committee on Agriculture, a new standing Committee was organized, known as the College Committee, to which such reference was made. Designedly, this committee was so constituted as to represent three elements, the educational and agricultural interests of the College and of the State, and also those of the Mechanic Arts. For many years this make-up of the committee obtained. At times, the committee reference has depended upon the subject matter. In such cases, the reference has often been to more than one committee. At the present time, the principal reference is to the Committee on Education.

From 1871 to 1880, the Department of Engineering, both Civil and Mechanical, had been under the efficient direction of Professor W. A. Pike, who resigned in the latter year to accept a more remunerative position in the West. A division in the department was then made, the Civil Engineering being assigned to Professor George H. Hamlin, and the Mechanical Engineering to Professor Charles H. Benjamin. The periods of service of all these able officers are given in another chapter of this history.

In 1880 also, some revision was made in the course in Agriculture, especially bringing into larger prominence experimental features. In 1881 biennial sessions of the Legislature began, to which adaptations in presenting the needs of the College had to be made.

In 1882, one matter of very general interest at the time was the securing of the first military detail from

the government. Hitherto, military instruction had been given at the expense of the college treasury. For a number of years Bowdoin College had received the benefit of the detail of a U. S. army officer through recognition of General Chamberlain, the accomplished President of the College, and earlier an officer of great distinction in the Union Army. The military drill at Bowdoin College was a voluntary or an elective matter, whereas at the State College it was required by the National Government. The latter fact seemed to give the larger claim for the assignment of a government military officer to the State College. On the ground of good neighborhood, however, there was no disposition to disturb the existing arrangement. When, however, it was reported to the trustees of the State College, on what was regarded as good authority, that, on expiration of the existing detail, a renewal would not be sought by Bowdoin College, they decided that when the time indicated should come, application should be made on behalf of the State College.

The incidents connected with this application are herewith given somewhat in detail. In January, 1882, the writer was in Washington in the interests of the College. During his stay, a Washington paper announced that the military officer at Bowdoin College had retired from service for that institution. The time for immediate action as contemplated by the trustees of the State College seemed to have arrived. Accordingly, accompanied by Hon. Eugene Hale, then a U. S. Senator from Maine, the writer repaired to the War Department. After introduction to the Secretary of War, Hon. Robert Lincoln, and to Gen. Wm. T. Sherman, the object of the call was made known. At first, Mr. Lincoln was doubtful whether an assignment

could be made, on the ground, according to his memory, that the quota of details allowed to New England colleges was already full. Gen. Sherman suggested that the Adjutant General's records would determine. Communication was promptly made with the proper office, and presently Adjutant-General Drum appeared with the records. On examination, it was decided that a detail could be made to the Maine State College. Adjutant-General Drum then aided in selecting the officer. A list of twenty or more received consideration. After a short time this list was reduced to three, and finally to one. Before the writer left the War Department that morning, application, in due form, had been made for the detail of the chosen officer and had been placed on file in the Adjutant-General's office. A week or ten days later, the following communication was received from that office.

"Special Order
No. 15.

Headquarters of The Army.
Adjutant-General's Office,
Washington, January 20, 1882.

EXTRACT

* * * * *

2. By direction of the President, and in accordance with Section 1225, Revised Statutes, 2nd Lieutenant Edgar W. Howe, 17th Infantry, is detailed as professor of military science and tactics at the Maine State College of Agriculture and the Mechanic Arts, Orono, Maine, and will report for duty accordingly.

* * * * *

By command of General Sherman.

R. C. DRUM,
Adjutant-General.

Official.

H. C. CORBIN,
Assistant Adjutant-General.

President of College,
Orono, Maine."

The matter of detail thus seemed to be clearly and definitely settled. A few days later, however, General Chamberlain on his way home from Florida, arrived in Washington, where he learned of the order issued in favor of the State College. He at once made claim to six months more of military service for Bowdoin College on the ground that the officer assigned to that institution had resigned at the expiration of two and one-half years.

Lieut. Howe was in the West and had been ordered east to Orono. On his journey, he received a second order, directing him to report to Bowdoin College for six months, to complete the unexpired term of the preceding officer. This he did.

Within this period, a satisfactory correspondence had been carried on with the War Department relative to the future detail to the Maine State College. At the same time a friendly correspondence had also been carried on with General Chamberlain who, at their next meeting, recommended to the Boards of Bowdoin College that any claim which Bowdoin might make for a military officer should be waived in favor of the Maine State College. Thus happily ended the incidents connected with the securing of the first military detail.

By another order of the War Department, bearing date August 12th, 1882, Lieut. Edgar W. Howe was directed to report for duty, "as professor of military science and tactics at the Maine State College of Agriculture and the Mechanics Arts, Orono, Maine." Since the first military detail, the others have followed, essentially, as a matter of course. A more general account of military instruction in this institution will be given in another part of this history. The incidents of this record seemed to entitle them to a place in the time-order of events rather than in a special chapter.

I am loath to leave this account of the first military detail, without another reference to General Chamberlain, who, as a professor in Bowdoin College, was my instructor more than fifty years ago in Rhetoric and German. I had a great admiration for Professor Chamberlain then, an admiration which has increased with the years, and with his brilliant and distinguished achievements in military and civil life. It is pleasant to remember that the friendship between us has constantly contributed to the cordial relations between the two institutions which we have respectively represented.

It will be recalled that, on account of certain exhibits at the Centennial Exposition in Philadelphia in 1876, large interest was aroused in the Russian system of shop-instruction, and that vise-work and forge-work were started at Orono under somewhat adverse conditions. In 1878, the trustees petitioned the legislature for a mechanical shop in which the Russian system could be carried out on a more extended scale. They petitioned again and again, but it was not until five years had gone by that their persistence was rewarded. Early in 1883, the money for the building of a wooden shop at a cost of \$2,800 was appropriated. Other appropriations for the College had necessarily been made, but nothing before for this specific purpose.

In the report for 1883 of the Department of Mechanical Engineering by Professor Charles H. Benjamin, a description of this building is given, an abstract of which is herewith submitted: "The new shop building authorized by the present legislature was completed Thursday, September 6th, and work began in the wood shop the same day. The main building is a plain but substantial wooden structure, two stories in height, measuring 36 feet by 56 feet on

the ground. The first story contains a machine shop 28 feet by 30 feet, a vise-shop 11 feet by 34 feet, a sink room, engine room and tool rooms. The machine shop is not equipped at present, but the vise-shop has been furnished with hardwood benches fitted with vises and drawers. The engine belonging to the College has been mounted on a permanent foundation of brick and stone reaching below the action of frost.

"The second story contains a wood shop 19 feet by 38 feet, a drawing room 16 feet by 34 feet, a lecture room and an office. The three last-named rooms have been left in an unfinished condition, for lack of funds to complete them. The wood shop has been equipped with benches, vises and tools.

"Adjoining the main building is an ell, one story in height, measuring 56 feet by 24 feet on the ground, and containing a forge shop, foundry, and a small room for patterns. The monitor roof on this building, with its adjustable windows, secures good ventilation, while the clay floors are essential to safety from fire. The foundry is unfinished. The forge shop contains the boiler for the engine and has been fitted up with new cast iron forges of an improved pattern."

Referring to the Russian system of shop-instruction, Professor Benjamin says in his report: "It speaks well for the system, and for the instructor, Mr. Flint, that the students in this course have been enabled in a few weeks to do better work than they could have done after as many months spent in an ordinary apprenticeship." This account of the shop and shop-instruction admirably illustrates the manner in which the different departments of the College have grown from the first, by gaining a little here and a little there, until they have attained to conditions of full efficiency. This

shop, although regarded as temporary, served the department of mechanical engineering for many years, and paved the way, as already expressed, for the more costly and permanent mechanical buildings and equipments of the present period.

From the establishment of the College, farm experiments had been carried on, to the extent that could be afforded. It was in 1885 that such experimentation was more definitely organized under what was known as the State Experiment Station, located at the College, although not a part of it. The following reference to this experimental work and to the establishing of the Station appears in the president's report for the year above named: "Each year since the organization of the College, a certain amount of experimental work on the farm has been accomplished, and the results have been reported. The amount necessarily has been small, from the limited expenditures which the College could make in this direction. Enough, however, has been done to demonstrate the value of such experimentation.

"Although the State Experiment Station is under different management from the College, both in its Board of Control and in its officers, yet the fact of its establishment at the College has rendered its work of especial interest to all connected with this institution. The rearrangement of the Chemical Laboratory by which a portion of it was devoted to the purposes of the Station has proved of no disadvantage to the College and the space assigned has proved adequate for the analytical work of the Station and satisfactory to its officers. Besides the room formed by partitioning off a part of the Analytical Laboratory, the Station also controls room No. 7 in White Hall, which is used as an office."



THE CAMPUS IN 1885

As now recalled, the relation between the College and the Station was coöperative, the College furnishing the Station its home, and the Station, on the other hand, naturally and almost necessarily, taking over from the College certain kinds of experimental work.

In October, 1887, the State Station was superseded by the Maine Agricultural Experiment Station, established under the provisions of the Hatch Act. For a fuller account of the farm experimentation conducted by the College, and the more elaborate experimental work by the two stations, reference is made to the Chapter of this history written by Dr. C. D. Woods, the able Director of the Maine Agricultural Experiment Station.

It is not pleasant to write of calamities. If not a calamity, it was certainly a very considerable misfortune which befell the College in 1886, and which involved the destruction of its fine and valuable herd. This herd consisted of three grades, ten thoroughbred Shorthorns and thirty-eight thoroughbred Jerseys. Of the fifty-one animals, forty-eight were registered. This herd had been built up by careful selection through several years, and on the market would have easily sold for \$5,000.

A part of the record in the report of 1886, by Hon. Lyndon Oak, President of the Trustees, relative to the loss of the herd on account of tuberculosis is as follows: "Late in the autumn of 1885, disease appeared in the College herd of cattle. The disease began to spread late in the winter following, and before the last of February many of the animals became affected. As soon as the character of the disease was known, the State Commissioners on Contagious Diseases of Cattle were notified. The Commissioners

promptly appeared at the college farm, took the stock in charge and ordered it quarantined. After the most careful examination, aided by the best attainable counsel, they decided that the only safe course to pursue was to exterminate the entire herd, which was accordingly done. To the College, this was a severe misfortune. It cut off a source of income much needed by the farm, in addition to the serious loss involved."

From the report for the same year of the farm superintendent, Mr. G. M. Gowell, the following account is selected: "In response to the united request of Governor Robie and the State Cattle Commissioners, the U. S. Department of Agriculture directed the assistant veterinarian, Dr. Michener of New York, to visit the diseased cattle, which he did in conjunction with Dr. Bailey and Mr. Gilbert of the State Commission, April 21st.

"An examination was made and out of the herd of fifty-one animals before any losses, only four were found which were pronounced to all appearances clear of the disease. The Commissioners ordered the entire herd of animals killed and buried, which was done during the two following days, April 22nd, and 23rd."

The writer distinctly recalls that in the line of official duty and obligation, Governor Robie, with members of his Council, observed that Fast Day of his own appointment, April 22nd, 1886, in attending at Orono the carrying out of the order given by the Commissioners. The condition of the animals slaughtered fully confirmed the wisdom of the order.

The conclusions of Dr. Michener in regard to the infected herd were given in a communication bearing date April 29, 1886, addressed to His Excellency, Hon. Frederick Robie, Governor of Maine, and signed, Ch.

B. Michener, V. S., Inspector Bureau of Animal Industry. This communication had the full concurrence of Geo. H. Bailey, D. V. S., Commissioner for Maine on Contagious Diseases of Animals. These conclusions expressed in briefest form were as follows:

- 1st. The disease did not originate from unsanitary conditions. The sanitary conditions were all that could be desired.
- 2nd. The disease was not started or fostered by improper feeding or by lack of sufficient ventilation and exercise.
- 3rd. The disease was probably started by an occasional animal brought into the herd, in which, at the time of purchase, the disease was in its incipient stage and escaped detection.
- 4th. As the disease developed, the destruction of the entire herd was the safe remedy.

After the animals were removed, the buildings were disinfected through the agency of carbolic acid, sulphuric acid, copperas solution, and fumes of burning sulphur, and those parts of the floors on which the animals had stood were removed and replaced by new material.

The quarantine established in April was raised in November as shown by the following communication:

"PORTLAND, Nov. 18, 1886.

"To the Trustees of the Maine State College of Agriculture and the Mechanic Arts:

"This is to certify that on November 10th, I visited Orono to inspect the buildings that had contained the Jersey herd destroyed by order of the Cattle Commissioners and find that all the recommendations and requirements prescribed by Dr. Michener and myself have been faithfully complied with, and believe the

buildings to be in as safe condition to introduce new stock as it is possible to make them through the agency of disinfectants and thorough ventilation. The means adopted meet my entire approval.

GEO. H. BAILEY, D. V. S.

State Veterinary Surgeon."

It thus appears that no blame for the unfortunate circumstances which have just been related could rightfully attach to the College authorities. Their effort was to meet and overcome this misfortune in the same philosophic spirit in which they had met and overcome other adverse conditions.

By contrast, the years 1887 and 1888 are memorable for better fortune to the College and the cheer of more encouraging conditions. It was early in 1887 that the National Congress passed what was known as the Hatch bill, by which fifteen thousand dollars a year were provided for experimental purposes for each of the colleges established under the provisions of the Morrill Act of 1862. The money was thus furnished for starting the Maine Agricultural Experiment Station. An account of its important work is given in a later chapter.

It is an interesting fact that on the same day in 1887 in which a resolve carrying an appropriation of thirty-four thousand, six hundred dollars for the College was under consideration in the Maine House of Representatives, the Hatch bill finally passed in the National Congress. One incident in connection with this fact must not be forgotten. The Maine House had come to afternoon sessions and the debate on the College resolve had gone on for perhaps two hours, when a prominent member of the House and a firm

friend of the College came to the writer and stated that he had just received a telegram from Washington, informing him of the passage of the Hatch Act. He asked, "Shall I make announcement in the House for its bearing on the debate?" The reply was, "Let us win this appropriation on its merits and then have the announcement made." This suggestion was accepted and an hour and a half later, when the resolve had passed to be engrossed and the House was about to adjourn, Hon. Joseph Manley of Augusta, who had received the telegram, made announcement of the passage of the Hatch Act by the National Congress. In the applause that followed, one could not have told who favored or who opposed the appropriation. With equal enthusiasm all united in the hearty demonstration. It was thus apparent that the opposition and prejudices of the earlier years were surely giving way and in time would cease to exist.

It might seem that the decision to win the appropriation on its merits without aid from the telegram, involved a risk for the College. In reality that was not the case. It is noticeable in a legislative body that when the debate becomes exciting, the attitude of members toward a proposition will be evident, as telling points are made on the one side or the other. So to speak, the members give themselves away. It is thus ordinarily not difficult to forecast the outcome of a discussion, provided strong points are made which elicit sympathetic response from the auditors. After two hours' debate on the College resolve on that memorable afternoon, it was clear that the margin of safety was ample. When the vote was taken, it so proved.

CHAPTER V

DR. FERNALD'S ADMINISTRATION

Concluded

Among the events worthy of record in 1888 were the completion and dedication of Coburn Hall. Plans for a building for the Departments of Natural History and Agriculture were made in 1884. Incidentally, this building was also designed to furnish improved accommodations for the library. As first planned, the cost of the structure was estimated to be \$15,000, but in the three years which elapsed before an appropriation was made for it the plans were improved to such extent that they called for a building costing \$25,000. This sum was granted by the Legislature of 1887. The building was under construction during the larger part of that year, and was completed in the early part of 1888, and dedicated under the name of Coburn Hall, in honor and in memory of Hon. Abner Coburn.

It was a matter of pride to the officers of the College that one of its graduates, Mr. Frank E. Kidder of the class of 1879, was the skillful young architect who made the plans and specifications for this building. By gratuitous professional services for his Alma Mater, Mr. Kidder endowed the Scholarship which bears his name and which perpetuates his honored memory.

The dedication of Coburn Hall, June 26, 1888, was an important event in the history of the College. It marked the beginning of the end of what has been called the "pioneer period."



COATHEN HALL.

The appropriate and valuable addresses given on that occasion are preserved in the College Report for 1888, in which they cover sixty odd pages. The program of dedication, the ode that was sung, and the general statements which immediately precede the printing of the addresses in the College Report are herewith given:

MAINE STATE COLLEGE OF AGRICULTURE AND
THE MECHANIC ARTS

ORONO, MAINE

DEDICATION OF COBURN HALL
June 26, 1888

PROGRAM

Music

Address of Welcome	President Fernald
Prayer	Rev. C. F. Allen, D. D.

Music

Historical Address	Hon. Lyndon Oak, President of the Trustees
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Music

Report of the Building Committee	Wm. T. Haines, Esq., Chair- man
Presentation of Keys	Governor Marble
Responses of Acceptance	President Fernald, Professor Harvey, Professor Balentine

Music

Congratulatory Addresses	Senator Libbey of Penobscot Senator Heath of Kennebec Representative Libby of Burn- ham Representative Cushing of Tur- ner
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Music

Brief Addresses by H. M. Estabrooke, M. S., for the Alumni,
and by other friends of the College

Singing of the Ode

Benediction

Ode

By Mrs. M. C. Fernald

Air, "The Old Oaken Bucket"

A full score of years, with their records, have entered
Eternity's gate, since men wise in their day,
With hearts in the weal of posterity centered,
Here planted good seed to be fostered for aye,—
Good seed that was precious beyond common knowing,
Long nourished in darkness and watered with tears;
Its sunshine, the faith of a few in its growing,
Its culture, the courage that yields not to fears.

But e'en while the germ of rich promise seemed sleeping,
To childish impatience for growth without time,
Who holds all right efforts in vigilant keeping,
He blessed the young plant and He taught it to climb.
Its strong roots outreaching, its bright blades up-springing
At length its fair fruitage appeared to the sight;
The years, as they pass, richer harvests are bringing,
Their God-given increase we hail with delight.

With praise for the past to the bounteous Giver,
With trust for the future, in gladness we meet
On the beautiful banks of the still-flowing river,
Our sheaves, with rejoicing, to lay at His feet.
Our ardor renewed by His promise of blessing
To those who are faithful in service, tho' small,
True hearts and firm hands to our labors addressing,
May harvests here reaped be the glory of all.

In the absence of His Excellency, the Governor of the State, the keys of Coburn Hall were presented by Hon. Hannibal Hamlin, of Bangor, first President

of the Board of Trustees. Unfortunately, the very fitting address by Mr. Hamlin cannot now be reproduced. Of the responses of acceptance, that of Prof. Harvey alone was furnished for publication. Representative Libby of Burnham was absent from the State.

On account of the lateness of the hour when Prof. Estabrooke was called to speak for the alumni, he made only brief remarks instead of presenting the more formal paper designed. Besides the addresses given, brief congratulatory remarks were made by Rev. Mr. Davidson of Greenville, Major Dickey of Fort Kent, and Rev. Dr. Pepper, President of Colby University. Formal congratulations by many other friends of the College present were prevented by the fullness of the program, but all recognized the admirable adaptation of the new building to its purposes.

From 1875 to 1885 inclusive, the appropriations of the State for the College had averaged about \$6,000 a year. In 1887, as already noted, the appropriation for the years 1887 and 1888 was \$34,600, and in 1889, the appropriation for the years 1889 and 1890, was \$30,000. This increase on the part of the State of more than \$10,000 a year was immediately reflected in better equipment of every department of the College, in an increasing number of students, and in a spirit of hopefulness and confidence such as hitherto had not rested on so secure and substantial a basis.

In the immediate future, still better fortune was before the College, in the passage by Congress of what is known as the second Morrill Act, to which reference will later be made.

In referring to the necessary destruction of the herd in 1886, it was characterized as a misfortune, and so it was, both to the College and to the State. Happily,

however, the misfortunes that have come to the College have made their appearance only at considerable intervals, so that there has been time to rally from the effects of one before the visitation of another.

Early in 1890, the first building erected by the trustees for college purposes, early known as White Hall and later as Wingate Hall, was lost by fire. An account of its destruction is given in the president's portion of the College Report for 1890. The record was made while the facts were fresh in mind and reads as follows:

"The fire by which this hall was destroyed occurred on Sunday morning at about 11 o'clock, February 9, 1890, only five days after the opening of the spring term. Eleven students held rooms in the building but it chanced very fortunately that but four were occupying their rooms at the time of the fire.

"The cause of the fire is unknown. So far as known there was no defect in chimney or flues from which it could have originated. There was no known material in the building from which spontaneous combustion could have taken place. It was natural, therefore, to suppose that it must have originated from an overheated stove in one of the rooms. The occupants of the building were at church when the fire occurred, as were also most of the students and the families residing on the college Campus. When discovered, the flames were making rapid headway in the upper story of the building. Those arriving first at the scene of the fire succeeded in removing from the two lower stories of the building, the drawing tables, settees and chairs in the class-rooms, and the transits, levels and other instruments belonging to the Department of Civil Engineering. The organ belonging to the Young Men's Christian Association was also saved.

"The principal individual losses were from the destruction of the third story of the building and consisted in the burning of furniture, clothes and books. It is good to record in this connection that a subscription by the faculty, by students and by citizens of Orono, reimbursed the losers in part for their losses.

"Although the engine companies of Orono, Stillwater and Oldtown were speedily on the ground and the hydrants of the new water system near the hall enabled them to work to advantage, and every one worked heroically, it was found impossible to save the building. A strong northwest wind was prevailing at the time. The anemometer record shows that at the beginning of the fire, the wind was blowing at the rate of twenty miles an hour, and that while it was prevailing, the wind rose to forty-eight miles an hour. The companies in which insurance had been effected regarded the loss total and promptly paid the full amount of insurance on the building and a small amount for damage to apparatus.

"The inconveniences and embarrassment arising from the loss of Wingate Hall, especially in the Department of Civil Engineering, have been great, but an effort has been made to endure them philosophically while awaiting the new building which should take its place without delay and thus give the engineering departments a habitation as well as a name."

After the burning of Wingate Hall, the pressing question was, whether to use the insurance money, \$10,000, in building a wooden hall, less expensive than the one destroyed, or await aid from the legislature to be convened in 1891. The latter plan was adopted; and, as a part of the State appropriation for the year, \$16,000 were added to the \$10,000 in hand, for the new

Wingate Hall. Thus, after a period of inconvenience, the engineering departments were provided with a better building of more enduring material and with ampler accommodations than hitherto they had enjoyed. The cost of the new hall completed was fully \$30,000.

Notwithstanding this serious loss by fire, the year 1890 proved to be a year of general prosperity for the College, and in a specific way, the year of a beginning of a substantial increase in its financial strength. On August 30, 1890, the bill known as the second Morrill Act, which had just passed in the National Congress, was approved and became law. Briefly stated, this act provided for "the more complete endowment and support of the Colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July 2, 1862," that is, the first Morrill Act.

For the purpose indicated, the second Morrill Act appropriated for each college the sum of fifteen thousand dollars for the year ending June 30, 1890, and this sum was to be increased by one thousand dollars each year, over the sum for the preceding year, until it should amount to twenty-five thousand dollars a year, at which annual sum it should remain thereafter without increase.

The other provisions of this act are not essential to our immediate purpose and hence are omitted. The act as a whole will be found in the Appendix.

As a chance matter, the State of Maine, or the State College, held an important relation to the passage of the second Morrill bill. It came about in this way. The bill had been introduced into the National Congress, and representatives of the State Colleges at Washington, through conference with members of Congress, had

become satisfied that it would easily pass provided it could come up for consideration in the session then near its close in August, 1890. The greater pressure for time was in the House of Representatives rather than in the Senate. Hon. Thomas B. Reed of Maine was speaker of the House and chairman of the steering committee which determined what legislation should be called up for action. Mr. Reed's attitude, therefore, as to the admission of the Morrill bill, was regarded as all important. In this situation, the writer, as President of the Maine State College, received numerous letters from the presidents of other State Colleges endowed under the Act of 1862, indicating that Maine would be held responsible for getting the second Morrill bill called up for consideration in the House over which Mr. Reed presided. It was well understood that Mr. Reed and the Maine president had been college friends, and that the acquaintance and friendship thus formed had been continued. It was not so well known that in the correspondence between us relative to the Morrill bill Mr. Reed was showing himself cordially responsive. The period of solicitude was not long. A few days before the close of the session, the Morrill bill received favorable consideration on the part of the House, and having passed in the Senate in due time, it received the presidential approval.

This substantial reenforcement of annual revenue for the College, provided for by the second Morrill Act, together with the more favorable attitude on the part of the State, gave reason for the belief that the hard or doubtful period in the history of the institution was over, and that a new and brighter era had already dawned upon it.

The year 1890 marked the transition between what

we have termed the "pioneer period" and the "period of development," the former extending over but twenty-two years, the latter stretching away through the centuries of the illimitable future.

Among the material advances of 1891, mention should be made of the new Wingate Hall valued at \$30,000, the new dairy building with its complete equipment, the horticultural building, considerable renovations of several buildings, and improvements at many points on the college Campus through the work of Professor Munson in landscape gardening.

In the College Report for 1891, the following statement relative to a revision of the courses of study appears: "The several courses of study have undergone careful revision and enlargement. They have been conformed to the more complete equipment and organization of the College.

"The Course in Science and Literature, which heretofore appeared as a modification of the Course in Agriculture, has been definitely written out and will hereafter appear as a separate course. In its present form, it is well suited to students desiring a general education or to those desiring to become teachers. It constitutes also a good course of study for young women.

"The more technical courses have been so arranged as to secure the largest amount of time for practical work with the least loss of recitations. Under this plan, students in agriculture, during the autumn just past, have devoted whole days in the dairy building receiving special instruction and attending to the manufacture of butter and cheese. Under this plan, the civil engineers of the Junior Class, without interference with the requirements of the class-room, have had the benefit of



WINGATE HALL

two full days each week for field work with engineering instruments under the immediate oversight of an instructor. The cases cited are sufficient for illustration."

It will be recalled that the legislature of 1879, which granted no appropriation to the College, required that tuition should be imposed. For reasons previously given, tuition was first collected in 1881. In the ten years intervening between 1881 and 1891, the adjustment to tuition had been completely made. In the latter year, however, tuition was removed by state law. After a few years, it was reimposed and has continued to the present time. In the judgment of the writer, after adjustment was once made to it, it would have been more satisfactory to continue the system without interruption, than to adopt toward it a varying policy.

In the College Report for 1892, among the material changes noted, are "the construction of a foundry, of a tool shed, of a water tower and considerable additions to the books in the library, to the apparatus in the different departments, to the lathes and other machinery in the mechanical shop, and a very noticeable improvement of the roads and walks and some portions of the grounds under the direction of the college landscape gardner." It is also stated that: "The new class recently admitted with additions to other classes and to the list of special students makes the accession of students the largest at any one time in the history of the College." The period of development, to which reference has been made, was surely beginning.

The same report enables us to take account of stock, and so to comprehend from the beginning what progress had been made. A few selections will give us the necessary data.

"BOUNTY OF THE STATE

"The measure of liberality shown by the state, in accordance with obligations imposed by the national government and assumed by the state in accepting the conditions of the Land-Grant Act of 1862 and of subsequent acts of Congress additional or amendatory thereto, appears in the following table:

LEGISLATIVE APPROPRIATIONS IN AID OF THE COLLEGE

1867	.	.	\$20,000	1877	.	.	\$15,218
1868	.	.	10,000	1878	.	.	6,500
1870	.	.	50,000	1880	.	.	3,000
1871	.	.	6,000	1881	.	.	3,500
1872	.	.	18,000	1883	.	.	13,000
1873	.	.	24,000	1885	.	.	12,400
1874	.	.	12,500	1887	.	.	34,600
1875	.	.	10,500	1889	.	.	30,000
1876	.	.	8,000	1891	.	.	24,500
							<hr/>
							\$301,718

"During the twenty-five years since the first appropriation was made, the average annual sum appropriated has been in round numbers \$12,000. The larger part of the money granted by the State has been devoted to buildings and equipments. The College has much to show as the result of the judicious expenditure of this money, as appears in another table. In fact, the draft for instruction and other current expenses, upon the sums from time to time assigned by the State has averaged less than \$3,000 annually."

"VALUE OF BUILDINGS AND EQUIPMENT

"For nearly all the buildings, the cost in round numbers is given as nearly as it can be readily determined. In the case of the sets of buildings on the premises when the farms were given to the College, the value is estimated. The brick buildings have undergone but little change since they were erected, and all the buildings have been kept in good repair.

"Except, then, as the value of the dollar for building purposes has changed, the original cost is fairly representative of the actual value of the buildings today, for the objects to which they are devoted.

Oak Hall (Dormitory)	\$30,000
Boarding house and connected buildings	6,000
Wingate Hall (Engineering)	30,000
Chemical Laboratory	27,000
Horticultural building and plant house	3,000
Dairy house and fixtures	4,000
Farm house and connected buildings	5,000
Barn No. 1	9,000
Barn No. 2	3,000
Stable and shed	1,500
Mechanical shop	2,250
Coburn Hall (Agriculture and Natural History)	27,000
President's house	5,000
Professor's house	3,250
House occupied by Beta Society	4,000
House occupied by Q. T. V. Society	4,000
Two cottages	1,600
Experiment Station (building)	8,000
Water system, including tower, main and distributing pipes, hydrants, pumping station, etc.	10,000

Stock, carriages, tools, etc.	\$6,000
Apparatus in dairy building	2,000
Machinery and other equipment of shop	8,000
Apparatus in the several departments, including Experiment Station	34,400
Library	12,000
	<hr/>
	\$246,000

"GENERAL FINANCIAL STATEMENT

"The Endowment fund derived from the sale of government land-scrip is \$118,300, invested in a State of Maine bond paying five per centum. The interest accumulated on this fund, now added to the endowment, is \$13,000, of which \$4,000 invested in the bonds of the Hallowell Scientific and Classical Academy pays no interest, \$6,000 pays interest at six per centum and \$3,000 at four per centum. The Coburn Fund, a gift of \$100,000, invested in a State of Maine bond pays interest at four per centum. The annual revenue from the above-named sources is \$10,395. As tuition was removed by the last legislature, this source of revenue is now cut off. From the United States government, the College receives under the recent Morrill Act \$18,000 for the fiscal year ending June 30, 1893."

The annual assured receipts, therefore, at the date named, 1892, including those for the Experiment Station, were above \$43,000, a four-fold increase in the last decade. This sum, when the full annual benefit from the second Morrill Act should become available, would increase automatically to \$50,000 a year.

This exhibit of annual assured receipts,

necessarily does not include state appropriations for the College, inasmuch as from the nature of the case, and as a preceding table shows, they are from year to year very decidedly a variable quantity.

Resuming the quotation, the following paragraph in one regard correctly forecasts the future:

"To maintain the specialized system of instruction which enables its graduates to attain with remarkable facility, positions of prominence, and which is fast securing for the College a reputation of the highest value, a relatively large teaching force is required. From present indications, instead of allowing of reduction in the near future, it will have to be increased."

"STATISTICS OF GRADUATES AND NON-GRADUATES

"The number of graduates of the College (to 1892) is 367, of whom 348 are now living. The number of non-graduates or those who have pursued partial courses of study is 346, of whom 314 are now living. The total number, therefore, of those who have enjoyed the advantages offered by the College, not including the present undergraduates, is 713.

"Of the 314 living non-graduates, nearly all are engaged in honorable and gainful callings, many of them holding positions of large responsibility for which their mental training at this College has been the principal preparation.

"The occupations of the 348 living graduates are shown in the following table of grouped employments:

AGRICULTURE AND ALLIED INDUSTRIES

Farmers	17
Professors of Agriculture	2
Directors of Agricultural Experiment Stations	2
Chemists to Agricultural Experiment Stations	5
Veterinary Surgeons	3
Nurserymen	2
Florist	1
Assistant U. S. Bureau of Animal Industry	1
Editor of Agricultural paper	1
	—
Total	34

CIVIL ENGINEERING AND ALLIED INDUSTRIES

Civil Engineers	72
Professor Civil Engineering	1
Instructor Civil Engineering	1
	—
Total	74

MECHANICAL ENGINEERING AND ALLIED INDUSTRIES

Mechanical Engineers	26
Draughtsmen	18
Manufacturers	16
Architects	3
Professor Mechanical Engineering	1
Instructors Mechanical Shop	4
Mining Engineers	2
	—
Total	70

EDUCATIONAL AND LITERARY WORK

Teachers	22
Professors and Instructors in Colleges not included in above	8
Superintendents of Schools	2
Journalists	8
	—
Total	40

PROFESSIONS

Lawyers	17
Physicians	10
Clergymen	3
	<hr/>
Total	30

BUSINESS

Merchants	13
Clerks	6
Traveling Salesmen	2
Bankers	3
Real Estate Agents	2
Insurance Agents	2
	<hr/>
Total	28
Miscellaneous Employments	72

"It thus appears that of the 348 living graduates, 10 per cent. are engaged in agriculture and allied industries, 21 per cent. in civil engineering, 20 per cent. in mechanical engineering, 11 per cent. in educational and literary work, 9 per cent. in professions, 8 per cent. in business, and the remaining 21 per cent., mostly recent graduates, in miscellaneous pursuits."

One suggestive recommendation in the report of twenty-three years ago (1892) will be read with interest: "It should be stated that in the development which the College is now undergoing, * * * the effort has been to make strong the existing departments rather than to create new ones. I believe the policy to be a wise one. When, however, the financial condition of the College shall justify the addition of courses in Electrical Engineering and Architecture, it will be found that they will also be in accord with an indus-

trial development surely and steadily going forward in the State."

Two years later, the Course in Electrical Engineering was introduced. The Course in Architecture still awaits realization.

The same report makes mention of one of the minor events of College history in the following language: "Field day (June 15, 1892) served to bring 1200 visitors to the College, whom it was a pleasure to welcome. They manifested very great interest in all departments of the institution and returned to their homes with a cordial appreciation of the College from their brief but pleasant acquaintance with it. The fact should be fully understood that visitors are always welcome and that they will find much that is attractive in what is daily open to their inspection on the Campus."

One event connected with life on the Campus in 1893 will not soon be forgotten. Reference is made to the fire in the president's house which made itself known early in the afternoon of January 20, 1893. Its cause is not known, but there was reason to believe that it originated in a defect around one of the chimneys, by which woodwork came in contact with a chimney which burned out the night before. The fire apparently smouldered unperceived for a number of hours in a confined space adjacent to the chimney, before suddenly breaking out in a closet where clothes were kept and in the cellar below. The first warning was from flames suddenly developed in the centre of the building and spreading very rapidly.

Although the time was in a vacation of the College, a number of professors, students and other persons on the Campus immediately came to the rescue and com-

menced removing furniture from rooms still accessible. The fire company from Orono was also promptly on the ground and succeeded in holding the flames to the interior of the building so that its destruction was only partial. Naturally, there was considerable damage to furniture, books and clothing from fire and water, and the members of the president's family, then at home, found themselves largely destitute of garments beyond what they had on at the time of the fire. Effort was made to accept the situation philosophically, and to improve it as speedily as possible. The president's office was changed temporarily from a room in the president's house to a room in Coburn Hall. Until repairs could be made in the house, accommodations in the way of rooms and board for the family were obtained at the College Commons.

One touching incident, connected with this sudden dispossession of a home, should here be related to the credit of persons not now living. The night following the fire and until other arrangements could be made, we were all taken in, as a matter of neighborly hospitality, by Professor and Mrs. Balentine, then living in the house later known as "The Maples." In the morning, with the thought that the president should surely reside on the Campus, their proposition was to turn over the house which they were then occupying to the president's family, and seek quarters for themselves at the village. Although this thoughtful and generous proposition was not accepted, we have not ceased to honor the spirit of unselfishness which prompted it nor have we ceased to hold the incident among the choice and sacred treasures of memory. In due time, repairs on the house with additions and improvements were made and the family home reestablished.

The appropriation by the legislature of 1893 was \$12,000, making the total State appropriations to date for the College \$313,718 or a little above \$12,000 a year from the beginning.

The last catalogue published during the writer's administration near the close of the year 1892 shows that the number of students then in College was 128. Although he admitted the next class, the record of it appears in the report of 1893, in which year the number of students was 139.

The changes in the faculty since 1879 had been gradual and yet sufficient to furnish a list of members made up largely of new names. This list is given as furnished by the report of 1892.

FACULTY

Merritt C. Fernald, A. M., Ph. D., President and Professor of Mental and Moral Science.

George H. Hamlin, C. E., Professor of Civil Engineering.

Alfred B. Aubert, M. S., Professor of Chemistry.

Allen E. Rogers, A. M., Professor of History, Logic, and Civics.

Walter Balentine, M. S., Professor of Agriculture.

Walter Flint, M. E., Professor of Mechanical Engineering.

Francis L. Harvey, M. S., Ph. D., Professor of Natural History.

James N. Hart, C. E., Professor of Mathematics and Astronomy.

Howard S. Webb, B. M. E., Instructor in Shop-work, Secretary, and Registrar.

Fred P. Briggs, B. S., Assistant in Natural History.

Nathan C. Grover, B. C. E., Assistant in Civil Engineering.

Harriet Converse Fernald, M. S., Librarian.

Welton M. Munson, B. S., Professor of Horticulture and Landscape Gardening.

Horace M. Estabrooke, M. S., A. M., Professor of Rhetoric and Modern Languages.

James S. Stevens, M. S., Ph. D., Professor of Physics.

Mark L. Hersey, A. M., Lieut. 9th U. S. Infantry, Professor of Military Science and Tactics.

Gilbert M. Gowell, Instructor in Practical Agriculture.

David Wilder Colby, B. S., Assistant in Chemistry.

David W. Trine, B. S., Assistant in Horticulture.

Prior to 1893, it had not been the custom to enter the names of the staff of the Experiment Station with the names of the members of the faculty in the College Catalogue. Since 1893 and including that year, the custom of entering the united list in the College Catalogue has prevailed, very properly, of course, inasmuch as the whole institution includes all its parts. Therefore, notwithstanding a chapter is devoted to the important work and data of the Experiment Station in another part of this history, it seems fitting, that, in connection with the faculty list just given for 1892, the complete organization of the Station should be submitted for the same year, five years from its inception in 1887. This record is taken from the Station Report for 1892.

MAINE STATE COLLEGE

AGRICULTURAL EXPERIMENT STATION

STATION COUNCIL

Committee of Trustees

B. F. Briggs, Esq., Auburn

Rutillus Alden, Esq., Winthrop

Arthur L. Moore, Esq., Limerick

Advisory Members

B. W. McKeen, Esq., Freyeburg.	State Board of Agriculture
D. H. Knowlton, Esq., Farmington	State Pomological Society
Prof. I. O. Winslow, St. Albans.	Maine State Grange

Members from Station Staff

M. C. Fernald, Ph. D., President of College,	<i>President</i>
W. H. Jordan, M. S., Director of Station,	<i>Secretary</i>
Walter Balentine, M. S.	Professor of Agriculture
F. L. Harvey, Ph. D.	Professor of Natural History
F. L. Russell, V. S.	Veterinarian to Station
W. M. Munson, B. S.	Professor of Horticulture

STATION OFFICERS

W. H. Jordan, M. S.	Director
M. C. Fernald, Ph. D.	Meteorologist
Walter Balentine, M. S.	Experimental Agriculturist
F. L. Harvey, Ph. D.	Botanist and Entomologist
J. M. Bartlett, M. S.	Chemist
L. H. Merrill, B. S.	Chemist
F. L. Russell, V. S.	Veterinarian
W. M. Munson, B. S.	Horticulturist
F. P. Briggs, B. S.	Assistant in Botany and Entomology
A. M. Shaw	Foreman on Farm
Mrs. J. Hamlin Waite	Stenographer and Clerk

As Dr. Allen had done before him, the writer, during a large part of his presidency of the College, devoted from three to four hours a day to class-room work in addition to the administrative duties. He was

conscious of the strain of overwork, but in the financial condition of the College it seemed unavoidable. After the added financial resources of 1890, he was glad to free himself from exacting duties to the extent of turning over the work of the Department of Physics, which he had carried for twenty and more years, to Professor James S. Stevens, who since 1891 has been the able and efficient head of this department. This relief, although helpful, came too late. Early in 1892, he found himself in so seriously impaired health as seemingly to leave, in justice to the College and himself, only one course to pursue.

He had ambitions for the College, and since the transitional period of 1890, he had had the satisfaction of seeing several promising plans of development inaugurated. One that has proved especially fruitful and serviceable is that of coöperation with approved schools. These plans and ambitions he was obliged to set aside, in so far as they were personal. In May, 1892, he tendered to the trustees his resignation as president of the College, to take effect in the coming August. He remained on duty, however, while the trustees were seeking his successor, or until September 1, 1893.

It is gratifying to add, that, under his able and honored successors, the most essential of the plans and ambitions referred to have been realized. One, at least, among those deemed of most importance still awaits fulfillment. The time for this will doubtless come. Reference is made to the introduction of a course in Architecture.

In these opening chapters no attempt has been made to present the routine work of the institution, important as that work is and must always be, the emphasis having been laid on bringing under notice the principal

events in the history of the College from the beginning down to 1893, leaving the minor incidents for a subsequent chapter or omitting them altogether.

In the leading chapters to follow, in order to hold these records to a proper limit of space, a similar method will be pursued.



ABRAM WINEGARDNER HARRIS

CHAPTER VI

ADMINISTRATION OF

ABRAM WINEGARDNER HARRIS, SC. D., LL. D.

President 1893-1901

DR. ABRAM WINEGARDNER HARRIS, a graduate of Wesleyan University, Class of 1880, entered upon duty as President of the Maine State College, September 1, 1893. His service immediately preceding was as Chief of the Office of Experiment Stations in the Department of Agriculture, Washington, D. C.

From the College Report for 1893, the following reference to Dr. Harris, by Hon. Henry Lord, President of the Board of Trustees, will be read with interest: "A ripe scholar, having received the advantages of American and European institutions of learning, and for years connected with the department of agriculture of the national government, holding an official position the duties of which brought him in contact with the work of all the State Colleges of the nation, he seemed by training and experience, to have peculiar fitness for the presidency of the College.

"He assumed charge at the commencement of the fall term, and received, as was to be expected, the hearty coöperation of President Fernald and all of the College faculty; and under his direction, the affairs of the institution appear to be progressing favorably and with every indication that the new President will in no way disappoint the high expectations of his friends and the

Trustees. His elaborate report herewith appended with its suggestions and recommendations should be read with care by the people of the State, and especially by those who are interested in the present and future welfare of the College. Some of the recommendations made by him have been made in the past by President Fernald and the Trustees. Their importance is emphasized by the endorsement of President Harris, who has been quick to perceive the needs of the institution, and the weak places that need strengthening."

Among the more important recommendations contained in the College Report for 1893, was the establishing in the near future, or as soon as the finances would warrant, of a Course in Electrical Engineering, a Preparatory Medical Course, a Course in Pharmacy, and a Course in Library Economy. Among the more prominent needs emphasized were a Drill Hall and Gymnasium, a Woman's Dormitory, and houses for the faculty, that is an arrangement by which members of the faculty desiring to do so could erect residences for themselves on the College grounds. Attention was also called to the desirability of increased permanent annual income for the College, a matter of large importance. Its treatment in part by Dr. Harris is herewith given: "Endowment. Our work is expensive. It involves many lines of work and attention to a great number of details. To be done well, it requires a large number of instructors. For the development of this institution, it is necessary that its funds shall be increased, and that its income be permanent and certain. It is especially unfortunate that the State has been unwilling to follow a suggestion made by your Board many years ago to grant it the income of a fixed tax which would increase with the population and wealth of the State. Such

a fund should be sufficient to furnish both the assistance which the State should give to instruction and the funds to provide the necessary buildings and other facilities. It is good for neither the College nor the State to require the College officers to visit each legislature to lobby for the appropriation which the College ought to have."

In the preceding chapter, the writer stated that one of his ambitions for the College still awaits fulfillment. He is now ready to add that two of his ambitions for the College still await fulfillment. One was named; the other is a State mill tax for the College, providing for its suitable and permanent support. In his judgment, the adoption on the part of the State of an adequate mill tax is the fitting and wise method of meeting this accepted obligation.

The personnel of the faculty, at the beginning of the new administration, as given in the catalogue for 1893, is herewith submitted:

THE FACULTY

Abram W. Harris, Sc. D.,* President.

George H. Hamlin, C. E., Professor of Civil Engineering.

Alfred B. Aubert, M. S., Professor of Chemistry.

Allen E. Rogers, M. A., Professor of History, Logic, and Civics.

Walter Balentine, M. S., Professor of Agriculture and Agriculturist of the Experiment Station.

Walter Flint, M. E., Professor of Mechanical Engineering.

Whitman H. Jordan, M. S., Director of the Experiment Station.

James M. Bartlett, M. S., Chemist of the Experiment Station.

*Sc.D., Bowdoin College, 1894; LL.D., University of New Brunswick, 1902; University of Maine, 1904; Wesleyan University, 1906.

Francis L. Harvey, Ph. D., Professor of Natural History and Entomologist of the Experiment Station.
Lucius H. Merrill, B. S., Chemist of the Experiment Station.

James N. Hart, C. E., Professor of Mathematics and Astronomy.

Howard S. Webb, B. M. E., Instructor in Shop-work, Secretary and Registrar.

Fremont L. Russell, V. S., Veterinarian of the Experiment Station.

Fred P. Briggs, B. S., Assistant in Natural History.

Nathan C. Grover, B. C. E., Assistant in Civil Engineering.

Harriet Converse Fernald, M. S., Librarian.

Welton M. Munson, M. S., Professor of Horticulture, and Horticulturist of the Experiment Station.

Horace M. Estabrooke, M. S., M. A., Professor of Rhetoric and Modern Languages.

James S. Stevens, Ph. D., Professor of Physics.

Mark L. Hersey, M. A., 2nd Lieut. 9th U. S. Infantry.
Professor of Military Science and Instructor in Physical Culture.

Gilbert M. Gowell, M. S., Professor of Animal Industry.

David Wilder Colby, B. S., Assistant in Chemistry.

David W. Trine, B. S., Assistant in Horticulture.

Harris P. Gould, Assistant in Horticulture in the Experiment Station.

In the College Report for 1894, President Lord of the Board of Trustees reported thus in regard to the courses recommended the previous year: "Three new courses have been established within the past year; Library Economy, Pharmacy, and Electrical Engineering, all of which have attracted students to the College. Because of the Course in Library Economy, the College has now more female students than for years. The other two courses are proving popular, doubtless

for the reason that there is a consistent demand for young men with the training which these courses give."

The progress that had been made from the establishment of the College, as regards the courses of study, is admirably shown by the following condensed statement from Dr. Harris' portion of the report for 1894: "The eight courses of study leading to degrees, each requiring four years, are as follows: For general training, the Scientific Course, including required and elective studies in English, French and German, Mathematics, and Philosophy, Political Economy, Physics and Biology; in technology, the courses of Civil, Mechanical and Electrical Engineering; in applied science, the courses in Chemistry, Agricultural Science, Preparatory Medicine and Pharmacy. The short courses leading to a certificate are: The course in Library Economy for one year, designed for those who wish training in the care and management of libraries; the course in Pharmacy of two years, designed for those who wish to obtain a practical training in pharmacy in the shortest time; the courses of one and two years in Agriculture, designed for farmers, and training courses for farmers, of six weeks each, in General Agriculture, in Dairying and in Horticulture."

Since its inauguration, field day has proved to be an event of large interest to farmers and their wives and to all interested in agricultural progress. In the report referred to, President Harris thus speaks of it: "The field day of the agricultural departments is one of the pleasantest features of the college year. The last field day was June 1, 1894. It was determined by a count that over seventeen hundred persons were present. * * * The college buildings were thrown open, and especial pains were taken to exhibit the

facilities for instruction in the most satisfactory manner. The morning was devoted to an inspection of the laboratories, library, shops and other buildings. After dinner had been served upon the Campus, an exhibition drill was given by the cadets and a meeting was held in the college chapel, at which addresses were delivered by the president and members of the faculty, the secretary of the Board of Agriculture, and other prominent visitors."

One event in 1895 of large importance to the College, was the building of the Bangor, Orono, and Old Town Electric Road. This gives the College half-hourly connections with any one of these places. The bearing of the construction of this electric road upon the attendance of women students is thus referred to by Dr. Harris: "The law of the state has for many years admitted women to the College on equal terms with men, but as there are no dormitories for women (1895) on the Campus, and the only available rooms for rent are a mile and a quarter away, it has been nearly impossible for women to attend the College. The building of the Bangor, Orono, and Old Town Electric Road has done much to make the law effective, and the present year shows a noteworthy increase in the number of women."

What is said in regard to the increased facility of attendance by women, is also true, although perhaps in less degree, of the facility of attendance by men; or, in other words, the building of the electric road has made Bangor, Old Town and the village of Orono more largely available as places of residence for students.

In a very condensed way, President Lord of the Board of Trustees thus reviews the more important

improvements of the year 1895. "The new departments established during the year received their equipments and the work of each one is being carried on satisfactorily. The number of students has been larger each term, and the ensuing year promises a still greater increase. Expensive but important and necessary repairs and improvements have been made on the college buildings, especially on the dormitory, Oak Hall. * * * Each year the natural advantages of the college site are made more and more apparent. The grading of the Campus, laying out and building new roads and walks, and planting upon it of nearly 2,500 trees and shrubs during the past year, have added to the beauty of the college premises. The Campus and nearly all of the college buildings are now lighted by electricity from the college plant."

The repairs on Oak Hall so changed the interior of the building that the following account, with many details omitted, taken from the report of Dr. Harris may well be given here: "During the summer extensive repairs have been made in this building. The interior finish has been torn out for three stories and the building remodeled. The changes made are more extensive than were contemplated when the repairs were undertaken, for when the work was under way, the condition of the building proved to be much worse than was anticipated. The foundation of the middle of the front wall, which had given way and threatened to cause a fall of the wall, has been rebuilt. * * * Above the cellar the changes are practically uniform for the first, second and third floors. With the exception of one room, the entire finish has been taken out, including plastering. The stairways have been removed from the halls and been replaced by one stairway in the space

formerly occupied by hall rooms on the east side of the building, towards the boarding house. In order to obtain sufficient room, it was necessary to widen this space by moving back the partitions on each side eighteen inches. Ceilings have also been brought down to a uniform height. Removing the stairways and lowering the ceilings has given the hall-ways a much wider appearance. They have hardwood floors, oak wainscoting, and whitewood ceilings. The wood is finished in the natural color and the side walls are plastered with adamant. The rooms have white-wood ceilings and wainscoting, and adamant plastering. In the fourth hall, no extensive changes were made. The building is now in excellent condition and will bear favorable comparison with similar buildings in other institutions."

Oak Hall had been occupied for nearly a quarter of a century. Students in the earlier classes who made their college home there, if they have not kept trace of the material changes on the Campus, will be especially interested to know of this thorough renovation of the building.

Among new courses of study to which reference has been made, special interest centered around the introduction of a Latin-Scientific Course. President Harris thus presents the immediate reason for its introduction. "It is expected that this course will open to our graduates the profession of teaching, which is now nearly closed to them, since the higher schools of the State require the teaching of Latin, for which our students are not prepared. * * * The establishment of this course is in accordance with the demand of a large number of our alumni, and also with the action of many other technical institutions, and marks a tendency

in such institutions to lay increasing stress upon the work of those departments which furnish general rather than special training."

The first session of the Summer School was held in 1895, commencing July 15th and continuing three weeks. It was under the joint supervision of the State Superintendent of Schools and the President of the College. Both lecture courses and laboratory courses were given. From the modest beginning made in this year, the Summer School has developed in later years into a very considerable prominence and service.

The year 1895, although one of general progress and prosperity for the College, brought to it repeated misfortune by way of fire. The first occurred in the dormitory, Oak Hall, in the spring. It was promptly discovered and extinguished, doing damage to the value of less than one hundred dollars. A second fire occurred in the autumn, in the second floor of the wing of the Chemical Laboratory in an attic room used by a class in mineralogy. The wooden ceiling, floor, tables, plumbing, and apparatus were entirely destroyed, but the fire was prevented from spreading to other rooms. A third fire occurred November 2nd in the same building and was more serious. Dr. Harris' record of it reads thus: "It was first observed about 11 o'clock, in the cellar near the gas machine. It burned for three hours before it was finally extinguished, gutting the entire ell of the building, including the qualitative and quantitative laboratories, on the first floor and the mineralogy, and pharmacy laboratory on the second, which had been nearly restored after the former fire. The College is to be congratulated on saving the main building, which suffered only a slight damage from smoke and water. For this success, we are in-

debted to our excellent college water service, to the efficiency of the student fire service, and to the hearty and efficient help of the Orono fire companies."

Farmers' Field Day was observed on June 5, 1895, and was attended by about seventeen hundred visitors.

In 1896, the Chemical Laboratory received extensive repairs. The ell in which the fire occurred was rebuilt in two stories in place of one, the upper for qualitative and the lower for quantitative work. Since the restoration from the effects of the fire, this building has been known as Fernald Hall.

The College Report for 1896 indicates progress along different lines, with pressing need of more dormitory room, and of such buildings as a Drill Hall and Gymnasium, Chapel and Library Building, and a Mechanical Building to replace the wooden shop, costing originally \$2,800, and containing \$20,000 worth of apparatus and equipment. It was not expected that all these buildings could be supplied at once, but they represented wants for which, in the near future, provision should be made.

The Course in Library Economy had been maintained for three years. With the growth of the library, it was found that the duties of the librarian had greatly increased and that to maintain this course would involve the employment of an additional librarian or instructor. It was decided, therefore, to discontinue this course at the end of the college year.

In 1897, the legislation of the State as bearing upon the College was of large interest. President Lord of the Trustees refers to it in his report in the following language: "The past year has been a notable one in the history of the institution. The opinion which has existed in the State for some time, that the work of the

College should be limited within narrow lines, and that its growth and development of late years, especially, in certain directions, were not in accordance with the intentions of its founders and had been unwisely permitted, and that farther expansion should not be encouraged, found expression in the report of the able Committee of the Executive Council, appointed by Governor Cleaves to make an examination of the College and report its reasonable wants. The discussion of this report by the legislature opened for consideration the broad question of the future maintenance and scope of the institution, with the result that the name was changed to that of the University of Maine, and a strong expression was given favorable to the future broadening of the work of the institution until that work should be commensurate with the full meaning of the new name. * * * The legislature besides providing for the change of name, made it obligatory upon the Trustees to establish a tuition charge. * * * It is believed that the new name is an advantage to the institution, but that the tuition charge, while it will add to the income of the University, will affect unfavorably the number of students. Undoubtedly the freshmen class of 1897 was less in number because of this added expense, and it is probable that future classes will be affected in the same way."

President Harris, in reporting upon the same subject, the re-imposing of tuition, thus states: "There is a decrease in the freshman class which seems to be due chiefly, if not entirely, to the tuition charge imposed in compliance with the act of the last legislature. * * * The tuition charge did not have a marked effect upon the other classes." It will be recalled that in discussing in a preceding chapter the imposing of tuition

by the legislature of 1879 precisely the same results were shown to have followed; namely, no marked effect upon the students in college, but a decided reduction in the next incoming class, and indeed for several classes in a diminishing degree. In time, adjustment to the new condition was made and this factor of attendance, apparently, ceased to be operative.

The larger question before the legislature, relating to the future breadth of service which the College should be privileged to render to the State, and how it was answered, should be given in fuller detail. The record of legislative action as contained in Dr. Harris' report is herewith presented: "The action of the last legislature in relation to the institution was perhaps the most important in its history. The Legislature of 1895 provided for the appointment of a Committee from the Governor's Council to report to the Legislature of 1897, the reasonable wants of the College. The Committee appointed was the Educational Committee of the Council, and consisted of three men of recognized ability and position. Two of them were college graduates, one a member of the board of overseers of Bates College, and all legislators of experience.

"This Committee visited the College, and several similar institutions in other states. It sent to the legislature a printed report of nineteen pages which discussed two questions: 1. What are the wants of the College? 2. Which of these wants are reasonable?

"In reply to the first question, the report, after commending the administration of the College, approving its course of study, and complimenting the students, answered that the College needed all the things asked for by the president in the annual report for 1896 which had been submitted to the Committee in manuscript.

"In reply to the second question, the report held that none of these wants were reasonable 'as regards the taxpayer' or in other words, that the State could not be reasonably asked to provide any of the needed things. Fifteen pages were devoted to the reasons for this opinion.

"At the close, the report made certain quotations from the annual report for 1895, to show that it was the intention to develop the College into a State University, and said: 'It now remains to be seen if the legislature will commit the state to this idea of a university of the greatest breadth and usefulness.' Thus the issue before the legislature became mixed. Instead of considering the college appropriation on its merits, members were invited to consider it as an approval or disapproval of a supposed plan to expand the State College into a State University. It seemed to the College necessary to make the issue clear. Opportunity to do so was furnished by the visit of members of the legislature to Orono.

"Four Committees of the legislature were by vote of the legislature directed to visit and inspect the College, and all other members of the legislature were invited to join in the visit. The morning session of both houses was held at a very early hour and more than a hundred members left Augusta at nine o'clock, February 4th. Before the visit closed, I had an opportunity to present the needs of the College and to make some comments upon the report of the Committee of the Council. I maintained that the College was established by the State and belonged to it; that while the State had not contracted with the general government to make appropriations, except for buildings and their repairs, the College could not be maintained properly, unless the State did

make other appropriations; that the College was faithfully carrying out the purposes of the charter; that it must be maintained or the youth of the State would be deprived of opportunity to gain a technical education. I also showed that in comparison with other states, Maine was very deficient in the number of college students, and in proportion to her wealth had given little to help higher education.

"In order to simplify the issue before the legislature I recommended that the name of the College be changed to 'The University of Maine.' I called attention to the following passage from the act of Congress which led to the establishment of the College: 'The leading object shall be, without excluding other scientific and classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life,' as indicating that a broad and not a narrow institution was contemplated by the founders.

"A bill to change the name was introduced in the House by the Hon. A. J. Durgin of Orono, passed by both houses after discussion and signed by the Governor. The act was to take effect some day in June, 1897, to be designated by the trustees. The 23d day of June, 1897, Commencement day, was selected and the new name was announced during the Commencement exercises.

"A resolve was enacted appropriating for current expenses the annual sum of \$20,000 for ten years."

It will be remembered that in 1880, an attempt was made to break down the Courses of Study, or to re-

strict them within narrow limits. As the matter finally presented itself, the legislature virtually answered this question: Shall the legislature prescribe the courses of study for the Maine State College or, as heretofore, shall this duty devolve upon the trustees and faculty? The decision very wisely continued this obligation upon the officers of the College. The legislation of 1897 settled the further question, How broad may these courses of study be? The answer clearly given makes their breadth commensurate with the interests of the State and with a broad and liberal interpretation of the organic act.

From the president's report for 1897, the record in part in regard to the summer school is as follows: "The first session of the summer school was held in 1895 with 23 students. In 1896, there were 158, and in 1897, there were 126 students. No charge was made for tuition, but the expenses were borne by the Educational Department of the State, and the University. It was originally agreed that the division should be an equal one, but the College has borne the greater part of the expense. In view of the condition of our finances, and of the fact that a large majority of the students were attracted, chiefly, by the common school studies, it did not seem to me wise to continue the school." The summer school was revived later on, as will appear in a subsequent chapter.

Following the legislation of 1897 and in accord with it, the event of special interest in the succeeding year was the opening of a School of Law, as a department of the University. The report of President Lord of the trustees presents briefly the essential facts. "Early in the year" (1898) "the trustees were led to consider the expediency of establishing in the University a depart-

ment of law. Convinced after investigation that the expense of such a department would be small at the beginning, and if successful, it might eventually be self-sustaining, they decided to establish such a department, and the School of Law was opened in Bangor, October 5th, under the charge of Professor George E. Gardner, formerly Professor of Law at the University of Illinois. Twenty-six students at once availed themselves of the advantages offered, and the School has proceeded successfully and satisfactorily from the beginning." An account of the progress and success of the School of Law is given in a special chapter devoted to this important department of the University.

In 1898, the renovation of what was known as the White house, with additions thereto, forming a dormitory for women, was a material advance which should here be noticed. The record is from Dr. Harris' report. "The old White house, built in 1833 and recently occupied by the Q. T. V. Fraternity, has been extended and rebuilt as a dormitory and boarding home for women students. It is upon a site overlooking the Campus, and commanding a broad view of the river, villages and mountains. It is two stories in height, built in the old Colonial style and consists of a long central portion and two wings. It contains parlor, dining-room, kitchen, bathroom, and sixteen study rooms, each intended for two students. The rooms are well lighted, heated by a combined system of hot air and hot water and provided with electric lights from the university plant. A special feature is the long hall on each floor, extending sixty-six feet upon the front of the building, and wide enough to serve as assembly or study rooms. This building is known as the Mt. Vernon House." The old wing of the building bears the date, 1833; and

the new wing, the date, 1898. It should be added that Dr. Harris was himself the designer or architect of Mt. Vernon House.

Since military training has been a part of the regular system of instruction from the beginning of the College, it was to be expected that such an event as the Spanish-American war would arouse to a high pitch the patriotic spirit of the students. This proved to be the case.

An examination of the records for 1898 shows the extent of the University's participation in this war.

Number of undergraduate volunteers	42
Members of undergraduate classes, not in College	4
Former students volunteering, all but four accepted	20
	—
Total	66

Dr. Harris refers to those who came not back in the following words: "Four of the young men who marched away from the Campus with such high devotion were destined never to come back.

Charles Curtis Scott, 1899, Dexter, Maine

Roland Sampson Scribner, 1900, Patten, Maine

Eugene Allen Hackett, 1901, Caribou, Maine

Arthur Bartlett Morse, 1901, Jersey City, N. J.

were carried back to Maine from Chickamauga, stricken with typhoid fever, from which they died. They have paid the great cost of war; they shall reap the reward of a precious memory." A tablet, fittingly inscribed, placed in Coburn Hall, serves to keep these honored dead in grateful remembrance.

In the autumn of 1899, a Classical Course leading to the B. A. degree was added to the courses of instruction in the University. In the first term, thirty-one students availed themselves of the opportunities offered in the newly organized classical department.

Reference has been made to the beginning of a system or method whereby students could be admitted to the freshman class on certificates of fitness by the principals of approved schools. As indicative of the growth of this system, the catalogue of 1899 contains the names of ninety-one high schools, academies, and seminaries, the list at that time of such approved schools. Although this system has undergone modification in recent years, the University of Maine still admits students on certificates from the highest grade of fitting schools in the State.

The report of 1900 presents a systematized outline of the courses of study in the different Colleges of the University. The courses thus arranged represent the progress made in this regard to date. They were indicated as follows by Dr. Harris: "Since my last report, no new courses of study have been added to those already in existence, but some important modifications and improvements have been made. The University offers instruction in the following courses:

College of Arts and Sciences

The Classical Course; the Latin-Scientific Course; the Scientific Course; the Chemical Course; the Preparatory Medical Course.

College of Agriculture

The Agricultural Course; the Special Courses in General Agriculture; the Special Course in Horticulture; the Special Course in Dairying; the Agricultural Experiment Station

College of Engineering

The Civil Engineering Course; the Mechanical Engineering Course; the Electrical Engineering Course.

College of Pharmacy

The Pharmacy Course; the Short Course in Pharmacy.

School of Law

The following notes from the same report in regard to the faculty will be read with interest. "The list of faculty and other officers for the College year ending June, 1900, includes fifty-five names; of these six were lecturers in the school of law, and gave only a small part of their time to the university; ten others were employed for all or a part of their time in the work of the Experiment Station. * * * The list of institutions in which the members of the faculty have received the preparation for their work indicates the breadth and cosmopolitan character of the body, including not only American but foreign universities. The list includes: Amherst College; Baldwin University; University of Berlin; Boston University; Bowdoin College; University of Chicago; Cornell University; Denison University; Harvard University; University of Heidelberg; University of Iowa; Johns Hopkins University; University of Leipsic; University of Maine; Massachusetts Agricultural College; Massachusetts Institute of Technology; University of Michigan; Michigan Agricultural College; University of Munich; University of Nebraska; Northwestern College; University of Rochester; Syracuse University; Tufts College; Wesleyan University; Western Reserve University; University of Wisconsin; Yale University."

In 1901, the number of students reported for the year ending in June was 382, of whom 16 were women. Among the changes in buildings, a wooden structure formerly attached to the Commons was moved about four hundred feet to the south and was refitted for the joint use of the Art Guild and the Young Men's Christian Association, and the room in Oak Hall formerly occupied by the Association was made into three dormitory rooms. In addition the large room on the third

floor of Coburn Hall, formerly used as a Chapel, was cut into five rooms including one lecture room that would accommodate ninety persons, two recitation rooms accommodating forty persons each, a seminary room for the Department of Modern Languages, and a laboratory room for the Department of Philosophy. A number of years later, the partitions were removed, restoring the single room for the Department of Natural History.

The most important addition, however, in the way of buildings in 1901 was the completion of Alumni Hall, a brick building of impressive size and appearance, two stories in height. The cost of this building was met, in part, by subscriptions of the alumni and other persons.

It is noticeable that most of the reported needs of one period become accomplished results of a later period, the time of transformation usually ranging from one to ten years. The most urgent needs presented in 1901 were the following: A proper heating and power plant; a new building for the shop and for the technical work of the department of Mechanical Engineering; an infirmary for the care of sick students; and provision for increasing dormitory accommodations, either by securing loans for student associations to aid them in building houses, or by erecting a new university dormitory. In this connection, it has been interesting to trace in later years, the gradual transforming of suggestion into accomplishment.

In the latter part of the year 1901, Dr. Harris tendered his resignation as President in order to accept the Directorship of the Jacob Tome Institute, Port Deposit, Maryland, and severed his connection with the University on December 20th of the year named.



ALUMNI HALL

The personnel of the faculty of the university, including the Experiment Station and School of Law, as constituent parts of it, in the last full year of Dr. Harris' administration, is herewith given:

Abram Winegardner Harris, Sc. D., LL. D., President.

Merritt Caldwell Fernald, Ph. D., Professor of Philosophy.

Alfred Bellamy Aubert, M. S., Professor of Chemistry.

Allen Ellington Rogers, M. A., Professor of Political Economy and History, and Professor of Constitutional Law.

Walter Flint, M. E., Professor of Mechanical Engineering.

James Monroe Bartlett, M. S., Chemist in the Experiment Station.

Lucius Herbert Merrill, B. S., Professor of Biological Chemistry, and Chemist in the Experiment Station.

James Norris Hart, C. E., M. S., Professor of Mathematics and Astronomy.

Fremont Lincoln Russell, B. S., V. S., Professor of Biology and Veterinarian of the Experiment Station.

Welton Marks Munson, M. S., Professor of Horticulture, and Horticulturist of the Experiment Station.

Horace Melvyn Estabrooke, M. S., M. A., Professor of English.

James Stacy Stevens, Ph. D., Professor of Physics.

Gilbert Mottier Gowell, M. S., Professor of Animal Industry, and Agriculturist of the Experiment Station.

Charles Dayton Woods, B. S., Professor of Agriculture, and Director of the Experiment Station.

Nathan Clifford Grover, B. S., C. E., Professor of Civil Engineering.

George Enos Gardner, M. A., Professor of Law, and Dean of the School of Law.

Howard Scott Webb, M. E., E. E., Professor of Electrical Engineering.

Karl Pomeroy Harrington, M. A., Professor of Latin.

John Homer Huddilston, Ph. D., Professor of Greek.

William Emanuel Walz, M. A., LL. B., Professor of Law.

Gilman Arthur Drew, Ph. D., Professor of Biology, and Zoologist of the Experiment Station.

_____, Professor of Military Science.

Wilbur Fisk Jackman, B. S., Ph. C., Assistant Professor of Pharmacy.

Garnett Ryland, Ph. D., Assistant Professor of Chemistry.

Orlando Faulkland Lewis, Ph. D., Assistant Professor of Modern Languages.

Ralph Kneeland Jones, B. S., Librarian.

Reginald Rusden Goodell, M. A., Instructor in Modern Languages.

Charles Partridge Weston, C. E., Instructor in Civil Engineering.

Arthur Wellington Price, B. A., LL. B., Instructor in Law.

Charles Hamlin, M. A., Lecturer on Insolvency.

Lucilius Alonzo Emery, LL. D., Lecturer on Roman Law.

Andrew Peters Wiswell, B. A., Lecturer on Evidence.

Louis Carver Southard, M. S., Lecturer on Medical Jurisprudence.

Forest John Martin, LL. B., Lecturer on Maine Practice.

Hugo Clark, C. E., Lecturer on Equity Pleading.

Stanley John Steward, B. M. E., Foreman of the Shop.

Lucius Jerry Shepard, B. S., Assistant Horticulturist in the Experiment Station.

Ora Willis Knight, M. S., Assistant Chemist in the Experiment Station.

Edwin Carlton Upton, B. S., Tutor in English and Modern Languages.

Fred Hale Vose, B. M. E., Tutor in Mechanical Engineering.

Louis Siff, B. S., Tutor in Mathematics.

Roscoe Milliken Packard, M. A., Tutor in Mathematics.

William Porter Beck, B. S., Tutor in Physics.

Clinton Llewellyn Cole, B. C. E., Tutor in Drawing.

Allden Bradford Owen, B. M. E., Tutor in Electrical Engineering.

Edward Raymond Mansfield, B. S., Assistant Chemist in the Experiment Station.

Charles Hutchinson Lombard, B. C. E., Assistant in Civil Engineering.

Frank Henry Mitchell, B. S., Assistant in Chemistry.

James Arthur Hayes, B. S., Assistant in Chemistry.

Clifford Dyer Holley, B. S., Assistant Chemist in the Experiment Station.

Wilfred Harold Caswell, B. M. E., Assistant in Physics.

Philip Ross Goodwin, B. C. E., Assistant in Civil Engineering.

Percy Leroy Ricker, B. S., Assistant in Biology.

Perley Spaulding, B. S., Assistant in Horticulture in the Experiment Station.

Geneva Ring Hamilton, Assistant Librarian.

Elizabeth Abbott Balentine, Secretary to the President and Secretary of the Faculty.

The following extract from the report of Hon. Henry Lord, President of the Board of Trustees, for the year 1901, presents a résumé and a fitting appreciation of the services of Dr. Harris: "From the beginning to the close of his eight years of service, the university made rapid, constant and satisfactory progress in every direction. During that time the students increased in number from one hundred and thirty-nine to four hundred, and the faculty from twenty-five to more than fifty. New and important departments were estab-

lished, the courses of study were broadened and increased in number, and the standard of scholarship was raised. Many improvements were made on the campus, and most of the older buildings were remodeled or improved. Several new buildings were erected, the most important being Alumni Hall; so that at the close of his administration Dr. Harris left the institution larger, stronger and in every respect better fitted to do its work than when he became its President."

I desire to add my personal appreciation of the fine service which Dr. Harris rendered to the institution. To me it has been an impressive fact that the unity of the service from the beginning has been very completely maintained and that the lines of development early instituted have been, in large measure, followed. Thus it has come about that each administration, undoing little of that which preceded, and entering heartily into the spirit of the service, has been enabled to make its work constructive, so contributing to an ampler development of the institution along all lines. Dr. Harris' administration is an illustration in point.

It should be added that, after rendering an important service at Tome Institute for several years, Dr. Harris was called to Northwestern University, Evanston, Illinois, of which institution he is still the honored President.



GEORGE EMORY FELLOWS

CHAPTER VII
ADMINISTRATION OF
GEORGE EMORY FELLOWS, PH. D., L. H. D.,
President, 1902-1910

THE following statement, chiefly relating to the new President, appeared in the Report of the University for the year 1901: "On December 23rd, the trustees elected Dr. George Emory Fellows of the University of Chicago to succeed President Harris. Dr. Fellows was graduated from Lawrence University, Wisconsin, in 1879. During the next eight years, he was successfully engaged in teaching in leading educational institutions in the West and South. In 1888 and 1889, he pursued a course of study at the Universities of Berne, Switzerland, and Munich, Germany, receiving the degree of Doctor of Philosophy in 1889 from the University of Berne. From 1891 to 1895, he was professor of European History in the University of Indiana, since which time he has been connected with the University of Chicago, where he has done much university extension work, and has become familiar with the method of a large number of educational institutions. His endorsements were many in number and of the highest character. He will begin his work as President some time in January. Until then Dr. M. C. Fernald will serve as President *pro tempore*."

On Dr. Fellows' arrival at the University, he entered at once upon the executive duties with zeal and enthusiasm. His associates in the faculty at the begin-

ning of his service were largely the professors and heads of departments whose names appear near the close of the preceding chapter. The vacancy that therein appears in the Military Department had been filled by assignment of Brevet Major General Benjamin Piatt Runkle, L. H. D., as Professor of Military Science. Most of the other changes had been in the list of instructors and tutors under temporary assignments, and are not here reproduced.

The report of 1902 indicated that, as in former years, the campus had received careful attention, with marked improvements, and that the university buildings were generally in good condition except the shop building. It named as the most important and pressing needs of the University dormitory accommodations for the students, a suitable shop building for the Mechanical and Electrical Engineering Departments, and a central heating plant. The need of ampler dormitory accommodations was emphasized by the fact that many students were obliged to find boarding places in Orono, Old Town and Bangor, made possible (but not desirable) by the existence of the Bangor, Orono and Old Town Electric Road. The need of a new shop building was emphasized by the statement that the present shop building (1902) "is old, built of wood and much out of repair, and contains engines, dynamos, lathes, tools and other valuable apparatus used for purposes of instruction, liable at any time to be damaged or destroyed by fire."

In the President's portion of the report, it is stated that "extensive repairs were made on the Commons during the summer, which now make that building thoroughly first-class in every respect for the purposes for which it is intended." Referring to Alumni Hall

recently completed, Dr. Fellows writes thus: "The utility of Alumni Hall is becoming more and more apparent. The large gymnasium room and drill room is so much more appropriate a place for student entertainments that hereafter public functions which have been held elsewhere can best be held on the university grounds. This will serve a double purpose of attracting the interest of those who attend these affairs to the University itself, and of developing a feeling of pride and affection for the buildings among the student body."

In 1903, the new mechanical building, long sought for, was secured. The need of it, in due form, was presented to the Legislature early in this year and the sum of \$35,000 was appropriated "for the purpose of constructing and equipping a building for 'such machine, wood and iron working shops and laboratories as may be required for the use of the Departments of Mechanical and Electrical Engineering.'"

Referring to this building, Dr. Fellows said in his report: "When these shops and laboratories are completed, they should be sufficient for the Departments of Mechanical and Electrical Engineering until the total number of students in the institution shall exceed one thousand.

"By vote of the trustees, the new building has been named Lord Hall in honor of Honorable Henry Lord, for twelve years member of the Board of Trustees and for eleven years President of the same."

In order to provide accommodations for the increasing number of students, a hotel in the village of Orono had been leased for a period of years and was named University Hall. This building accommodated about sixty students. As the time approached for the opening of the fall term, 1903, it was evident that the room

for students would be insufficient in the then available dormitories and chapter houses. Accordingly, the large residence north of the campus known as Spearen's Inn, was leased and put in condition to serve as a dormitory. This pressure for room was emphasizing, in a decided way, the need of larger dormitory accommodations on the campus, and in time was sure to be effective to this end.

In 1903, also, a temporary exceptional condition in the region of the University brought about the erection of a building, regarded as one of the needs, but for which no earlier provision had been made. Dr. Fellows thus reports upon it: "Owing to the prevalence of smallpox in the vicinity of Bangor, Orono, and Old Town, it was ordered by a committee of the trustees that a small building for a hospital should be constructed on the grounds of the University." This was accordingly done, and although this hastily constructed building fortunately has been but little in service, it has fulfilled a useful purpose.

Among the needs of the University for other buildings, the two especially reported were a building for the Department of Physics and a library building. Another need regarded greater even than for buildings of any nature was that of increased income.

Hitherto, in recent years, a large proportion of the students had been admitted by certificate from certain schools approved by a committee of the faculty. During the year 1903, by vote of the faculty, the University of Maine joined the New England College Entrance Certificate Board, thus making available a New England list of approved schools in place of the Maine list. In 1903, a course in Forestry was added to the courses of study in the University.

The year 1904 is memorable for the dedication of two buildings on the university campus. An account of these dedications, together with a record of progress as regards buildings, is clearly given by President Lord of the Trustees in his report for 1904, from which the following extract is taken: "Notable changes have taken place in the buildings. Two new chapter houses have been erected, affording homelike accommodations for about sixty students, thereby relieving the University from providing dormitory accommodations for that number. Another chapter house is in process of construction. The Experiment Station building has been enlarged and greatly improved at an expense of about \$5,000. The large increase in the number of students in the agricultural courses has made the increased facilities necessary. This building, a detailed description of which is given in President Fellows' report, has been named Holmes Hall for Dr. Ezekiel Holmes, one of Maine's most prominent and public spirited citizens, who devoted years of toil and effort to advance the agricultural interests of the State of Maine. Dr. Holmes was largely instrumental in causing the University of Maine to be established as an independent institution. Holmes Hall was dedicated May 26, 1904. Appropriate and valuable addresses were made by Hon. S. L. Boardman, of Bangor, President Butterfield of the Rhode Island Agricultural College and Hon. A. W. Gilman, Commissioner of Agriculture. The new engineering building, Lord Hall, was completed, with the exception of the rooms upon the second floor, and was in condition to be used at the beginning of the fall term. This building of which full description can be found in the reports of last year, was dedicated November 22, 1904. The exercises took place in the Chapel,

which was much too small to contain the large number in attendance. Prior to the dedicatory exercises, the students in uniform gave a short drill on the campus, showing plainly the efficiency of their instruction in military tactics. The dedicatory exercises were as follows: Music by the University Band; prayer by Rev. Dr. Beach, President of Bangor Theological Seminary; delivery of the building to the State by Hon. Henry Lord, President of the Board of Trustees; acceptance of the building by Col. I. K. Stetson, as the representative of Governor Hill; entrusting the keys of the building to the President and Faculty by Senator Hale; acceptance of the keys by President George E. Fellows; dedicatory address by Hon. William T. Cobb.

"The weather was that of a beautiful Indian summer day. The exercises were very interesting, and the occasion especially notable because of the presence of Governor-Elect William T. Cobb and Senator Eugene Hale, whose able and eloquent addresses received the close attention of the large and appreciative audience. It was extremely gratifying to the friends of the institution to have the State and Nation represented by these distinguished men. The occasion was one of encouragement and inspiration to all present."

Over against the renovation and construction of buildings as described by President Lord of the Trustees, we have to record the destruction by fire in February, 1904, of a building, not owned by the University, but leased by it to increase dormitory accommodations for students. Reference is made to the building, formerly a hotel, but more recently known as University Hall, in the village of Orono. The financial loss to the University by this fire was estimated to be about \$2,500, partially in repairs that had been made for the con-



LORD HALL.

venience of the University and partially in destruction of furniture.

Among the progressive movements of the year, mention should be made of what is known as "Extension Work in Agriculture" and of the introduction of short courses of public lectures at the University, principally by men prominent in special fields of science and literature.

The more pressing needs of the institution were indicated by what it was purposed to ask of the next legislature, namely, "an appropriation of \$12,000 for each of the years 1905 and 1906 to defray the increased cost of instruction and equipment made necessary by the constant growth in the number of students, and for \$40,000 for a central power and heating plant."

In referring to the association with the New England College Entrance Certificate Board, Dr. Fellows gives expression in his report to the following sentiment, worthy to be borne in mind: "The University will continue the most kindly relations with all of the public schools and academies in the State, and every effort that can bring the schools and the University into closer touch and harmony will be made. The authorities will always keep in mind that the University is an integral part of the public school system."

Early in 1905, Dr. Fellows furnished a genuine and very pleasing surprise, by the announcement that Mr. Andrew Carnegie had made to the University the generous gift of \$50,000 for a library building. The correspondence had been carried on so discreetly that but few persons, if any, besides President Fellows, Librarian Jones, Mr. Carnegie and his secretary, knew of what was under consideration, until the gift was assured. Subsequently, Mr. Carnegie added \$5,000 toward the

equipment of the library. Dr. Fellows' reference to this building in his report written near the close of the year 1905 is herewith given: "The foundation of the new library building has been put in, the ground has been rough graded, and drains have been put in place. The wall has been covered and otherwise protected so that no harm is apprehended from the frosts during the winter. Considerable material is on the ground and all of the remaining material will be brought upon the ground during the winter, so that work upon the superstructure may begin at the earliest possible moment next spring."

Prior to 1905, the institution had maintained a water system of its own. In this year the entire water system of the University was connected with the Orono Water Works. This arrangement, it was believed, would be of great advantage and value to the students as regards convenience and health, and to the University, because of the greater protection from fire afforded to all the buildings on the campus. By making contract for a term of years, it was found that the cost of the new arrangement would be but little more than that of the former system.

A portion of the statistical data in regard to students contained in the report for 1905 will be read with interest: "The age of the oldest student in the freshman class is twenty-four years, three months and thirteen days; of the youngest, sixteen years, eight months and twenty-five days," supposedly at the date of registration. "Of the whole student body, 501 are from Maine; 75 from Massachusetts; 13 from New Hampshire; 5 from Rhode Island; 6 from Connecticut; 2 from New York; 2 from New Brunswick; 2 from Nova Scotia; 1 from Illinois; 1 from Missouri; 1 from



JAMES NORRIS HART

Georgia; 1 from California; 1 from Cuba; 1 from Peru." As would be expected, proximity is the large determining factor in the matter of attendance. "By the class entering in September, 1905, the religious membership or preference is given as follows: Congregationalist, 51; Methodist, 22; Baptist, 21; Unitarian, 9; Episcopal, 6; Universalist, 21; Catholic, 15; Christian, 1; Presbyterian, 1. Several did not report."

An important innovation, or change of organization, in recent years is thus referred to by Dr. Fellows: "The appointment of Professor Hart (as Dean) two years ago has proven one of the most effective means of systematizing the work of registration and administration, and better methods have been introduced for consultation with the freshmen in regard to their work and for keeping systematic checks upon delinquents. The increased number of students in all departments, and the necessity for some sub-division of the work of the existing Dean, led to the appointment of Professor Stevens as Dean of the College of Arts and Sciences." In still later years, the appointment of Deans has extended to all the Colleges of the University.

Reference is also made in Dr. Fellows' report to the revived summer term: "The special use of this term has been clearly demonstrated. A large number of teachers who cannot go to an educational institution during other parts of the year attend during the summer term. Some pursue advanced work, and others are enabled to take up part of the college course where they would otherwise have no such opportunity. The number of students is large enough so that the receipts are sufficient to pay the expenses of the summer term without drawing upon any of the regular funds of the University."

Among the urgent needs indicated in the report for 1905 were the following: A proper heating and power plant estimated to cost \$50,000; a large and completely equipped agricultural building, inasmuch as the work was then scattered in at least four buildings widely separated and none of them adequate; larger greenhouses and better arrangements for the Horticultural Department; and finally, increased salaries. Attention was called to the fact that the annual appropriation of \$20,000 for a term of ten years passed by the legislature of 1897 would terminate in one year, and that the next legislature would be asked to provide for the future financial needs of the University.

It will be recalled that work on the library building was commenced in 1905. "Excavation for the foundation was made during the summer, the foundation was built during the autumn and was carefully protected through the winter. The work of the superstructure was begun in April, 1906." The material was of Hallowell granite, the location on the campus a desirable one, and the building itself a model for library purposes. It was completed and dedicated on November 2d, 1906. The following is the program of the dedicatory exercises:

Music, by the University Military Band.

Prayer.

Report of the Building Committee.

Report of the Contractor.

Presentation of the Building to the State, by the
President of the Board of Trustees, Henry
Lord.

Delivery of the Keys to the President and Faculty
of the University, by the Governor of the
State, William T. Cobb.

Music, by the University Military Band.

The Relation of the University Library to the State,
by the Librarian of the University, Ralph K.
Jones.

Dedicatory Address, by the United States Com-
missioner of Education, Elmer Ellsworth
Brown.

Reception by "The Round Table" at the New
Library.

Music, by the University Orchestra.

Inspection of the Building.

It is hardly necessary to say that the library build-
ing fulfills an important mission and daily renders a
service of great value to all connected with the Uni-
versity.

In the way of indicating the tendency or drift of
students to different departments of the University, the
following table is instructive. It shows the gain in the
number of students not only for the whole University,
but for the different colleges for the year 1906-7 over the
numbers of the preceding year.

For the whole University	12%
For the College of Arts and Sciences	9%
For the College of Agriculture	40%
For the College of Technology	11%
For the College of Pharmacy	21%
For the College of Law	10%

For a number of years prior to 1906, instruction in
Pedagogy had been given, as a part of the service in the
Department of Philosophy. This service was brought
into larger prominence in 1906 by the introduction of a
new department, namely, the Department of Educa-
tion. Since that date, this important department has
had the full time of one or two professors, thus widen-
ing its field of usefulness. A course in Domestic
Economy was recommended on the ground that

"women seeking industrial training should have as good an opportunity as men." The time, however, was not quite ripe for its introduction.

One innovation of 1906, although temporary, was too important in its educational features to all interested to be omitted. Reference is made to the "Farming Special Train." An account of it with very slight modifications, is taken from President Fellows' report for 1906. The mission of the State University and particularly of the Agricultural College of the University is to spread information as widely as possible within the State. With this idea in view, it became possible through the generous coöperation of the Bangor and Aroostook Railroad and the Maine Central Railroad to run a special train for five weeks during the spring and early summer of 1906. The State Department of Agriculture united with the College of Agriculture in carrying out the plan. Invitations to accompany the train were sent to the officers of the State Grange, the State Pomological Society, the State Dairy Association, and other organizations connected with agriculture, including the editors of the agricultural papers in the State. Representatives of each organization, and of several newspapers in addition to the agricultural papers, were with the train for a longer or shorter period.

The train on the Bangor and Aroostook system ran twelve days according to a schedule previously arranged and published. This train consisted of one coach and two baggage cars, the latter containing apparatus and illustrative material relating to agriculture, animal industry, horticulture, entomology and the experiment station. Professors representing each of these departments, officers of the State Department of Agri-

culture, and students in the College of Agriculture accompanied the train. At every stop, from two to four short addresses on practical agricultural topics were given to the people who assembled. Ample opportunity was given for all to go through the train and examine the exhibits and ask questions. Where the train stopped over night, an illustrated lecture was given in a public hall. By estimate, from sixty to seventy thousand people on the two railroad lines went through the train and listened to the addresses. The train on the Maine Central system ran fifteen days on a schedule previously arranged and published. This train consisted of one coach and three baggage cars. In addition to the apparatus and illustrative material on the Bangor and Aroostook train, increased space was given to the Department of Horticulture and to an exhibition of forestry work. Beyond question, the two trains, which were run largely as an experiment, resulted in a quickened interest in all lines of agricultural work among those already ambitious, and in an awakened interest among many who, hitherto, had given little thought to improved farming methods.

It will be remembered that in 1899 a classical course of study, leading to the B. A. degree, was introduced in the University. This degree had been granted for several years, when in 1906 the question arose in the State whether or not the University was transcending her charter in granting this degree. As the discussion advanced, the real question at issue seemed to be not the right under the organic act to maintain classical studies in the University, but whether, with three classical colleges in the State, it was wise policy on the part of the State to maintain the various courses at the University leading to the B. A. degree. The words in the

organic act "without excluding other scientific and classical studies" which are nowhere modified by state law, clearly grant the right to introduce and maintain other scientific and classical studies than those definitely prescribed. The question of state policy was altogether another question and really the one at issue.

The whole subject was brought to public attention by the appointment in 1905 of a joint legislative Committee to ascertain and report to the next legislature what in the judgment of the Committee were the just obligations of the State to the University of Maine. The chairman of the Committee was Hon. Barrett Potter of Brunswick, a senator from Cumberland County, and the secretary was George E. Thompson, Esq., of Orono. The Committee held a hearing in the City Hall of Portland on May 23, 1906. The hearing was open to the public and was largely attended. The principal speakers invited to address the Committee were Hon. W. W. Stetson, State Superintendent of Schools, President Fellows of the University of Maine, President Hyde of Bowdoin College, President Chase of Bates College, President White of Colby College, and President Gibbs of the New Hampshire State College.

The Committee reported to the legislature of 1907 in two opposing drafts. As the majority report was the one adopted by the legislature and is comparatively brief, it is herewith submitted as a whole: "To the Honorable Senate and House of Representatives: The special joint Committee of the last legislature charged with the duty of ascertaining and reporting to you what, in the judgment of the Committee, are the just obligations of the State to the University of Maine, respectfully submit the following report:

"This is the third time when a special study of the institution's work and curriculum has been made. In 1880 an effort was made to remove certain studies from the curriculum which would have resulted in making the institution an agricultural and mechanical school rather than College. (Page 85, Report of the Hearings.) In 1897 the Committee of the Governor's Council reported unfavorably on the continuation of the existing policy of the institution. The report was to the effect that if the policy were continued the College would become a University. After receiving this report, the legislature not only voted an appropriation for a term of years, but changed the name from the Maine State College of Agriculture and Mechanic Arts to the University of Maine.

"Your Committee convened at Orono in the spring of 1906, and visited several of the departments of the University. We found the laboratories occupied to their fullest capacity. We found the work well done so far as the facilities permitted. We found the Chapel, which is the largest room on the campus, not large enough for the whole student body to be seated at one time. We also found that there is but one dormitory for men, which will care for seventy-two students. As there were at the time 611 students enrolled and we learn six months later that there are 687 students enrolled, we are decidedly of the opinion that the buildings, including laboratories and dormitories, are totally inadequate to care for the number of students now in attendance. If it were not for the fact that nine fraternities occupy houses of their own, it would be absolutely impossible to receive the students who apply for admission. We find that the Agricultural Department is compelled to give instruction in six different

buildings, and very few of the rooms are properly adapted to the kind of instruction to be given. It is obvious that a building to take care of the Agricultural Department is an immediate need.

"A subsequent meeting of the Committee was held in Portland on the 23d of May, and there appeared before the Committee several persons interested in this investigation of the University's affairs. A full stenographic report of this meeting has been published for the benefit of the members of the legislature.

"A great deal of interest was manifested in this public hearing. A number of persons spoke favoring the University and its work. The investigation disclosed but one question upon which all parties interested in the matter differed in opinion. Aside from that, there seems to be no uncertainty as to the needs of the University or the duty of the State toward it. This question was as to the continuance of the courses leading to the B. A. degree. On this point there was disclosed a decided disapproval and opposition to what was called 'the University's duplicating at the expense of the State the liberal arts courses of the other Maine Colleges and giving the Bachelor of Arts degree.' Arguments were presented to support this view. In the opinion of the Committee they were not sufficient to show clearly that the Trustees of the University were wrong in maintaining these courses or to warrant a change. Without considering the question whether the act was wise or in accord with the best interests of the University to establish these courses in the first place, the facts, as your Committee finds them, are: that the Trustees acting fully within the scope of their authority, nine years ago committed the State to that policy and that course of instruction. Many students have in good faith en-

tered the University for the purpose of taking these courses, and many others have entered there with the idea of taking some of the studies in these courses. They are now established and many students would be affected by a change. Your Committee, then, feel that it would be unwise to recommend any change in this respect.

"From a study of the relations of the State University to the educational systems in other states, we are convinced that a liberal support of the State University is a benefit to other educational institutions. As the University of Maine is the State institution, by acceptance of the first Morrill Fund of 1862, and the second Morrill Act of 1890, and the legislative acts on several occasions, it is, in our opinion, entitled to proper support.

"Your Committee find, then, that the 'just obligations of the State toward the University of Maine' are to care properly for the students who are in attendance, to secure competent faculty, an adequate equipment of apparatus and buildings, with a reasonable view to the present and the future.

"As this is a State institution, it is the opinion of your Committee that it should be placed upon such a financial basis that it will not be obliged to go to the legislature each session asking for maintenance, but should receive such an income at your hands as to place it on a financial standing equivalent to institutions of a similar character in other states, in proportion to their valuation and population.

Respectfully submitted,

HARRY W. DAVIS,
FREDERICK HALE,
LINCOLN H. NEWCOMB,
GEORGE E. THOMPSON."

The minority report, from its point of view, was an able document and fair-minded in its presentation of the case. It required twenty and one-half printed octavo pages as against the less than three such pages of the majority report. It favored generous support of the University as an agricultural and technological institution, but opposed the continuance of the courses in liberal arts, on the ground that these courses are adequately provided for by the three classical Maine Colleges and without expense to the State.

Both reports were submitted to the legislature of 1907 and, as previously stated, the majority report was adopted, thus giving State sanction to the courses in liberal arts introduced by the trustees into the curriculum of the University nine years before. In virtue of this legislative action, the B. A. degree has been continued and has been conferred, year by year, upon those entitled to receive it, with the other degrees of the University.

The question, "What shall be taught at our State institution?" has thus, in different phases, been brought three times before the legislature for its determination. Each time, this body has sustained the trustees in what they have outlined and recommended. The question, therefore, can doubtless be regarded as settled, and, in the future as in the past, the duty and responsibility of arranging the courses of study will properly devolve upon the trustees, subject to any limitations imposed by the organic acts, state and national.

The needs and recommendations reported in 1906 cover familiar ground. Expressed in condensed form, they include the following: A new dormitory, a central power and heating plant, an agricultural building, a physical building, a new building or an increase in the

size of the present building for the Department of Chemistry, larger and better accommodations for the School of Law, and additional equipments for the different departments, and a repetition of the recommendation for a fraction of a mill tax for permanent maintenance. Of course, it was not expected that all these needs could be responded to at once. They constitute a list for the near future, the more pressing items to receive consideration by the next legislature.

The next legislature or that of 1907, in addition to settling the question of the B. A. degree or of liberal arts courses, as already reported, appropriated \$50,000 for an agricultural building, made possible the construction of the oft-solicited central heating and power plant, and provided \$65,000 for the general purposes of the University. From the last named appropriation, many of the urgent needs of the institution were met wholly or in part, needed instructors secured, salaries increased, and new equipment purchased. With the central heating plant, when established, most of the university buildings, the president's house, and several of the fraternity houses were immediately connected, and later on, other buildings, as occasion made such connection desirable.

During the year 1907, plans for the new agricultural building were made and accepted, and the contract was let with the understanding that the building would be ready for occupancy in September, 1908. A farm cottage was constructed to provide for farm hands to live on the university grounds. An Extension Department in the College of Agriculture was definitely organized and extension lectures were given in larger numbers than in previous years, a valuable method of "bringing the faculty in touch with actual farming con-

ditions and of carrying instruction to all parts of the State."

The extent of agricultural instruction given in the College of Agriculture in 1907, independent of the extension lectures, is herewith presented.

Number of students in the four year course	32
Number of students from other courses taking	
Agriculture	9
Number of students in the two year school	
course	9
	<hr/>
Total	50

IN SHORTER COURSES

Number in the eight weeks' winter course	12
Number in the special poultry course	8
Number in the correspondence course	102
Number in attendance on farmers' week	116
	<hr/>
Total	238

Instead of running a "Farming Special Train" as in 1906, a system of demonstrations by members of the agricultural faculty was inaugurated early in 1907. An exposition of the method as given by Dr. Fellows is herewith repeated: "Announcements were made by the Dean of the College of Agriculture that members of the faculty of the College would be willing to meet groups of farmers at any place and time which could be conveniently arranged. These notices were generously printed by many of the newspapers of the State. Inquiries soon began to be received and arrangements for individuals in different communities to invite as many neighboring farmers as could be conveniently accommodated at any one place for a certain day. One of the members of the faculty of the College of Agriculture appeared at the appointed time with apparatus

necessary to demonstrate the work which was considered of most importance in that locality. Such work as spraying, mixing of fertilizers, testing of milk, was fully demonstrated in the presence of all. Questions were freely asked and answered, and the whole day in each instance was spent in this practical work and discussion. During the summer of 1907, sixty meetings of this character were held, with an average attendance of sixty-five, and this in the busy season for farmers. There is no doubt about the value of this kind of work to those who attend the demonstrations."

In the College of Arts and Sciences, the number of students enrolled was 127. The course of popular lectures on scientific and literary subjects, inaugurated in 1906, was continued with success. The summer term was reported as holding its largest and most successful session in 1907. Ninety-three students were registered, many of whom were college graduates.

In the College of Technology, 157 students were registered in Civil Engineering; 136, in Electrical Engineering; and 65, in Mechanical Engineering, making a total in this College of 358.

Among the subjects discussed in the report for 1907 looking to future lines of development of the University, the industrial training of women held a conspicuous place.

Fortunately, within the year the needs several times reported had been reduced by two, namely, by the heating and power plant, and the building for the Department of Agriculture. The development and organization of the College of Agriculture made a large advance in 1908. It will be recalled that the number reported in 1907 in the various courses, long, short, and special, and in attendance upon "Farmers' Week" was 288.

During the year 1907-1908, the enrollment was as follows:

Four year agricultural course	29
Two year school course	19
Short winter course	8
Special poultry course	41
Forestry students, not enrolled hitherto in this College)	42
Students from other courses, electing agricul- ture or forestry	17
Correspondence course	130
Farmers' week	371
	<hr/>
Total	657

In the fall of 1908, there were 34 new agricultural students.

The facilities for the Department of Agriculture kept pace with and doubtless stimulated the drift or drawing toward this department. Between July, 1907 and December, 1908, the following buildings had been finished or were nearing completion for agricultural purposes: "The new agricultural building and stock judging pavilion, farmhouse of ten rooms, a piggery 28x40 ft., a wagon shed 20x55 ft., an incubator cellar 25x40 ft., a brooder house 15x30 ft., a fattening and killing house 15x46 ft., and several poultry colony houses of various types." The foregoing statements furnish an instructive illustration of the relation between equipment and service, the latter being dependent upon the former. The doing and what one has to do with, are closely correlated. The above statistical record contains no mention of the 14,392 persons who, in 1908 in the State of Maine, attended the lectures and demonstrations given by the Extension Department of the College of Agriculture. In the same year, by pur-

chase from Mrs. William Woodward of Stillwater, one hundred acres of land were added, a mile from the University, to the area for farming purposes.

In June, 1908, at the meeting of the General Alumni Association, an important organization was formed, known as the Alumni Advisory Council. The function of this Council is thus given: "To promote the interests of the University of Maine by assisting the president and trustees of the university and in such other ways as may be possible." The Council is composed of fifteen members, ten elected by mail vote of all the alumni and one representative of each college of the University elected by the alumni of that college. The full term of service is five years, the terms of those first chosen being determined by lot for periods of time ranging from one year to five years. This Council, in various ways, has demonstrated its usefulness.

Late in the winter of 1908, a voluntary arrangement was made whereby different religious denominations in the State proposed to give services in the University Chapel from time to time on Sunday afternoons. Thus vesper services were inaugurated, and during the remainder of the college year seven such services were held, each about an hour in length, and each conducted by a representative of some one of the religious bodies uniting in the movement, which was open to all the religious denominations of the State. As a chance matter, the first service included an address by Rev. Dr. Washington Gladden of Columbus, Ohio. Such services have been continued at intervals for the several years since their inauguration and have proved of large interest and value.

Among the benefactors to the University of Maine, Mr. Andrew Carnegie, on account of his gift for the

library building, holds a conspicuous place. Among his large benefactions, the establishing of what is known as the Carnegie Foundation for the Advancement of Teaching is one of the most notable. One of the purposes of this Foundation was to provide retiring allowances for professors in colleges, universities, and technical institutions. The State Colleges and Universities were not included in the deed of gift of the original ten million dollars.

In 1906, the National Association of State Universities appointed a committee, consisting of the President of the University of Wisconsin and the President of the University of Maine, to present the claim of the State Colleges and Universities to participate in the benefits of the Foundation. In March, 1908, Mr. Carnegie gave an additional sum of five million dollars to the Foundation in order that the State institutions might be included. Formal acceptance of the gift by the legislature of Maine and by the governor of the State has been made, and the University of Maine is eligible under the deed of gift to the benefit of the Foundation. Some delay has occurred in the placing of this institution in the accepted list, but in time, it is expected that this will be done. Already two members of its faculty, as individuals, have been granted retiring allowances under the Foundation.

In 1908 the University of Maine was for the first time represented at Oxford, England, by a Rhodes scholar. Two members of the University, Mr. Ballard Freeze Keith of Old Town, Maine, and Mr. Harold Milton Ellis of Hingham, Mass., had passed the qualifying intellectual examinations but as the requirements of the Rhodes trustees include athletic ability quite as much as scholarship, the assignment was given to Mr.

Keith. Mr. Ellis received an appointment to a fellowship in Harvard University, a distinct recognition of his ability.

In the time order of events, at this point, a few words of personal reference may be pardoned. At the Commencement season, in 1908, the writer, who had been privileged in 1868, or forty years before, to open the institution to students, retired from active service, although his name is still retained in the catalogue as Professor of Philosophy, Emeritus. He was at that time seventy years of age, had been engaged in educational service for fifty years, and had been connected with one institution for forty years, save three when he was prevented from active service by physical disability. He finds, in his retirement, that his relations to the past and his duties to the present are such that his time is fully occupied, and now at seventy-seven years of age he is deriving great satisfaction from the preparation of this history, primarily for those with whom, in this long period, he has been so happily associated.

The most urgent needs of the University, reported in 1908, were a new dormitory for the accommodation of the increasing number of students, a building for the Departments of Physics and Chemistry, and in the way of making ample provision for permanent maintenance, a fractional mill tax.

The legislature of 1909 granted an appropriation for the proposed new dormitory, which was completed, or nearly completed, in the succeeding year and which is known as Hannibal Hamlin Hall. In the summer of 1909, the trustees caused to be constructed three dwelling houses on the campus for rent to professors in the University.

The trustees also leased for a period of ten years

the Orono House which had been conducted for many years as a hotel in the village of Orono, and refitted it as a University Inn. This building has contributed to the convenience and comfort of many members of the faculty and students, and now seems indispensable.

In 1909, the Department of Domestic Science, under consideration for several years, was fully organized. A large room, originally intended for a museum in the hall of agriculture, was fitted up as kitchen and dining room and with the essential laboratory equipment. This department was in charge of Miss Laura Comstock, and became speedily popular with women students. Miss Comstock not only gave instruction to regular students in the University, but also in connection with the Extension Department, went to all parts of the State "at the request of various organizations to give demonstrations and encouragement to local movements for establishment of work in this line." Under Miss Comstock and her able successors, this department has proved to be one of great service and usefulness.

The report of 1909 contained a word of warning as to the danger of athletics and social activities in the matter of absorbing time to the detriment of sound scholarship. It was indicated that the students themselves were taking measures to bring about the necessary reform. Attention was also directed to a plan of classification of the high schools of the State, by the State Superintendent of Schools, whereby these schools should be placed in three divisions, A, B, and C. The plan contemplated that, by thorough inspection, Class A high schools should be able to grant certificates which should entitle the holders to admission into any of the Colleges of the State. This plan was in accord with the educational system on which Dr. Fellows



HANNIBAL HAMLIN HALL.

uniformly laid emphasis, to the effect that a close relation should be established or should exist between the high schools and the University in any State, as also between the primary schools and high schools. In other words, the educational system should be continuous or without a break from primary school to University. The plan of certificate from Class A high schools has proved serviceable since the classification referred to above was adopted.

The new dormitory, Hannibal Hamlin Hall, under construction in 1910, is a building "168 feet long and 35 feet wide, having four stories and a basement. The building is divided by fireproof walls into three sections. Each floor in each section is provided with bath and toilet facilities and in the basement is a dining room large enough to accommodate three hundred. A thoroughly equipped kitchen is built in the rear, and is connected by corridors with the dining room." This brief description is given in order that early graduates may contrast the scale required in buildings on the Campus today with that deemed necessary four decades earlier when Oak Hall was constructed. Possibly they may recognize other contrasts which in the early days they would have regarded as bordering on luxuries.

Earlier in this chapter an account was given of Farming Special trains as a conspicuous feature of extension work. The running of these trains in 1906 is referred to in the report of 1910, as "the real beginning of the tie between the farmers of the State and the University." The report further states: "In June, 1910, the University in coöperation with the newly organized industrial department of the Maine Central, ran a train far better equipped for instruction pur-

poses than the one of 1906. The railway company furnished the train and the University the lecturers, demonstrators and exhibits. The State Department of Agriculture heartily joined in this effort, as on the previous occasion." As in 1906, an itinerary previously published was followed. The time covered by this train was from June 9th to June 25th inclusive. In the sections of the State visited, the attendance of farmers upon the lectures and demonstrations, and the interest in them were no less in 1910 than in 1906. The Farming Specials of both years were regarded as of large practical value.

During Dr. Fellows' administration, an increasing interest was manifested in the Summer School. The report of 1910 gives the attendance in 1902 as 13 and in the summer of 1910 as 153.

In the middle of the year 1910, Dr. Fellows tendered his resignation as President of the University to take effect later in the year. During his administration, the institution made very substantial progress along all lines, as has been shown by the records from year to year. Hon. Edward B. Winslow, President of the Board of Trustees in 1910, thus refers to his resignation: "Since the last report, the University has suffered a severe loss in the resignation of its president, George Emory Fellows, Ph. D., L. L. D." and again, "Dr. Fellows has resigned to take up work in another field, but he has left a record at Orono for earnestness and progression that will stand forever."

Two achievements of Dr. Fellows, during his residence in Orono, are recalled by the writer with special satisfaction. The one was the quiet securing of the money for the Carnegie Library Building with no publicity before the event, and the other was the thoroughly

efficient handling of the case of the University in 1907 before the State Committee, in the matter of conferring the B. A. degree. A fuller reference to these topics has already been made.

The personnel of the faculty was practically given at the time of transition from the administration of Dr. Harris to that of Dr. Fellows. It is herewith given at the time of transition from the administration of Dr. Fellows to that of Dr. Aley, his successor.

In the interim between the two administrations, that is, from September 1, 1910 to December 1, 1910, Dean James N. Hart served acceptably as Acting President.

THE FACULTY OF INSTRUCTION AND INVESTIGATION,
1910-1911

George Emory Fellows, Ph. D., L. H. D., LL. D.,
President, (Term of office ended September 1,
1910).

Robert Judson Aley, Ph. D., LL. D., President-Elect,
(Term of office began December 1, 1910).

James Norris Hart, C. E., M. S., Sc. D., Professor of
Mathematics and Astronomy; Dean of the Univer-
sity. Acting President *ad interim*.

Merritt Caldwell Fernald, Ph. D., LL. D., Emeritus
Professor of Philosophy.

James Monroe Bartlett, M. S., Chemist in the Experi-
ment Station.

Lucius Herbert Merrill, Sc. D., Professor of Biolog-
ical and Agricultural Chemistry.

Fremont Lincoln Russell, B. S., V. S., Professor of
Bacteriology and Veterinary Science.

James Stacy Stevens, M. S., LL. D., Professor of
Physics, Dean of the College of Arts and Sciences.

Charles Dayton Woods, Sc. D., Director of the Ex-
periment Station.

John Homer Huddilston, Ph. D., Professor of Greek.

William Emanuel Walz, M. A., LL. B., Professor of
Law, Dean of the College of Law.

Gilman Arthur Drew, Ph. D., Professor of Biology,
Director of the Museum.

Wilbur Fisk Jackman, B. S., Ph. C., Professor of
Pharmacy.

Ralph Kneeland Jones, B. S., Librarian.

Jacob Bernard Segall, Ph. D., Professor of Romance
Languages.

Harold Sherburne Boardman, C. E., Professor of
Civil Engineering, Dean of the College of Tech-
nology.

George Davis Chase, Ph. D., Professor of Latin.

Caroline Colvin, Ph. D., Professor of History.

Arthur Crawford Jewett, B. S., Professor of Me-
chanical Engineering.

Walter Kierstead Ganong, B. Sc., Professor of Elec-
trical Engineering.

Charles Davidson, Ph. D., Professor of Education.

Warner Jackson Morse, M. S., Plant Pathologist in
the Experiment Station.

Robert James Sprague, Ph. D., Professor of Econom-
ics and Sociology.

Charles Partridge Weston, C. E., M. A., Professor of
Mechanics and Drawing.

Raymond Pearl, Ph. D., Biologist in the Experiment
Station.

Percy Anderson Campbell, M. S. A., Professor of An-
imal Industry.

Charles Barto Brown, C. E., Professor of Railroad
Engineering.

Wallace Craig, Ph. D., Professor of Philosophy.

Roland Palmer Gray, M. A., Professor of English.

Ralph Harper McKee, Ph. D., Professor of Chem-
istry.

Garrett William Thompson, Ph. D., Professor of Ger-
man.

Guy Andrew Thompson, M. A., Professor of English
Literature.

Windsor Pratt Daggett, Ph. B., Professor of Public
Speaking.

- Charles Albert Varnum, Lieutenant Colonel, U. S. A.,
Professor of Military Science and Tactics.
- Henry Gough Bell, B. S. A., Professor of Agronomy
and Farm Manager.
- Oskar Augustus Johannsen, Ph. D., Entomologist in
the Experiment Station.
- Mintin Asbury Chrysler, Ph. D., Professor of Botany.
- Victor Ray Gardner, M. S. A., Professor of Horticulture;
Acting Head of the College of Agriculture.
- John Manvers Briscoe, M. F., Professor of Forestry.
- Leon Stephen Merrill, M. D., Director of Agricultural
Extension Work.
- Edgar Ramey Wingard, M. S., Director of Physical
Culture and Athletics.
- Leon Edwin Bell, A. M., S. T. B., Professor of Education
(Summer Term).
- Raymond Garfield Gattell, M. A., Professor of History
(Summer Term).
- Edith Marion Patch, M. S., Associate Entomologist in
the Experiment Station.
- Frank Macy Surface, Ph. D., Associate Biologist in
the Experiment Station.
- Herman Herbert Hanson, M. S., Associate Chemist in
the Experiment Station.
- Charles Edward Lewis, Ph. D., Associate Plant Pathologist
in the Experiment Station.
- Charles Wilson Easley, Ph. D., Associate Professor of
Chemistry.
- Walter Weidenfeld Bonns, B. S., Associate Horticulturist
in the Experiment Station.
- Edgar Myrick Simpson, B. A., Assistant Professor of
Law.
- Andrew Paul Raggio, Ph. D., Assistant Professor of
Romance Languages.
- Walter Molbray Curtis, S. B., Assistant Professor of
Mechanical Engineering.
- Harley Richard Willard, M. A.,* Assistant Professor
of Mathematics.

*Absent on leave.

Leon Elmer Woodman, Ph. D., Assistant Professor of Physics.

William Archibald Brown, B. S. A., Assistant Professor of Animal Industry.

Archer Lewis Grover, B. S., Assistant Professor of Drawing.

Charles Preston Weaver, M. A., Assistant Professor of English.

Laura Comstock, Assistant Professor of Domestic Science.

Paul Leonard Bean, B. S., Assistant Professor of Civil Engineering.

George Edward Simmons, M. S., Assistant Professor of Agricultural Engineering and Farm Management.

Truman Leigh Hamlin, M. A., Assistant Professor of Mathematics.

George Henry Worster, LL. M., Instructor in Sales and Private Corporations.

Bartlett Brooks, B. A., LL. B., Instructor in Contracts and Negotiable Paper.

Everett Willard Davee, Instructor in Wood and Iron Work.

Walter Everett Prince, M. A., Instructor in English.

Charles Jenkins Carter, Instructor in Machine Tool Work.

Lowell Jacob Reed, B. S., Instructor in Mathematics.

Harry Newton Conser, M. S., M. A., Instructor in Botany.

Maynie Rose Curtis, M. A., Assistant Biologist in the Experiment Station.

Albert Guy Durgin, M. S., Assistant Chemist in the Experiment Station.

Walter Elwood Farnham, Instructor in Drawing.

Robert Rutherford Drummond, Ph. D., Instructor in German.

Bertrand French Brann, B. S., Instructor in Chemistry.

James Renfrew Dice, B. S., Instructor in Animal Industry.

- Wintha Rudolph Palmer, B. S., Instructor in Horticulture.
- Sherman Daniel Chambers, B. S., Instructor in Mathematics.
- Walter Edmund Wilbur, B. S., Instructor in Mathematics.
- Ernest Conant Cheswell, Instructor in Engineering Laboratory Practice.
- Eugene Louis Raiche, Instructor in French (Summer Term).
- Albert Theodore Childs, B. S., C. E., Instructor in Electrical Engineering.
- Helene Julie Raiche, Instructor in French (Summer Term).
- Alice Middleton Boring, Ph. D., Instructor in Zoology.
- Ernest Claude Drew, B. S., Instructor in Physics.
- Lloyd Meeks Burghart, B. A., Instructor in Chemistry.
- Victor Alvin Ketcham, B. A., LL. B., Instructor in English.
- Julius Ernest Kaulfuss, B. S., Instructor in Civil Engineering.
- Harold Morton Royal, B. S., Instructor in Physics.
- Alvin Kimball Burke, B. S., Assistant Chemist in the Experiment Station.
- Raymond Pratt Norton, B. S., Assistant Chemist in the Experiment Station.
- Arthur Moses Buswell, B. A., Instructor in Industrial Chemistry.
- Royden Lindsay Hammond, Seed Analyst and Photographer in the Experiment Station.
- Henry Herbert Jordan, B. S., Tutor in Civil Engineering.
- John Neal Philbrook, B. S., Tutor in Civil Engineering.
- Forest John Martin, LL. B., Resident Lecturer on Common Law Pleading and Maine Practice.
- Charles Hamlin, M. A., LL. D., Lecturer on Bankruptcy and Federal Procedure.

Lucilius Alonzo Emery, M. A., LL. D., Lecturer on Roman and Probate Law.

Louis Carver Southard, M. S., LL. D., Lecturer on Medico-Legal Relations.

Edward Harward Blake, LL. B., LL. D., Lecturer on Admiralty.

Isaac Watson Dyer, B. A., Lecturer on Federal Jurisdiction and Procedure, and on Private Corporations.

Herbert Milton Heath, M. A., Lecturer on Cross-Examinations.

In the above faculty list, one hundred names appear. In the faculty list of 1868, when the institution was opened, two names appeared. The charge is indicative of the growth in forty-two years, a growth in which in recent years Dr. Fellows has borne a conspicuous part. For a large portion of the time, since retiring from the presidency of the University of Maine, Dr. Fellows has been the efficient President of the James Milliken University, Decatur, Illinois. At the time of this writing, he holds the Chair of History in the University of Utah, at Salt Lake City.



ROBERT JUDSON ALEY

CHAPTER VIII

ADMINISTRATION OF
ROBERT JUDSON ALEY, PH. D., LL. D.

President, December, 1910—

IN the trustees' report of 1910, the following brief reference to Dr. Aley is made: "Dr. Fellows' successor, the new President, is Robert J. Aley, Ph. D., LL. D. * * * Dr. Aley comes to the University with the strongest recommendations from the heads of all the institutions with which he has been connected, and also from the Governor and Board of Public Instruction of the State of Indiana, where he resigned the office of Superintendent (of Public Instruction) to come to Orono."

After one year of service, the report of 1911 thus refers to Dr. Aley and the endorsements above cited: "We feel that these recommendations have been fully justified by the enthusiasm, good judgment, and ability for work which Dr. Aley has brought to us."

Later experience has confirmed the favorable opinion so tersely expressed.

It was fortunate that the Legislature of 1909 provided for the maintenance of the University for four years, that is, from 1909 to 1912 inclusive. This fact gave the new president opportunity to become acquainted not only with the University and its needs, but to some extent with the people of the State, before any considerable legislative action would be required.

This time he turned to good account, while carrying forward the administrative duties, in becoming familiar with the full situation. With maintenance provided for, the routine work of the institution in 1911 went forward with only the changes in faculty and students and in other regards incidental to any year.

Some changes in equipment are noted in the President's report for 1911, which are herewith reproduced: "During the vacation just closed a new boiler was installed in the heating plant. This gives one boiler in reserve at all times, as three boilers are sufficient to carry the present load. The plan now in operation is to use each boiler three weeks and allow it to rest one week. In this way the boilers can be frequently inspected, thoroughly cleaned, and given whatever minor repairs may be needed. Hannibal Hamlin Hall, the new dormitory for men, has been completed and furnished and is now occupied by students. It gives splendid accommodations for 156 men. At the opening of the fall semester the building was full.

"The old Commons building has been transformed into a recitation building for the English Department. It is now known as Estabrooke Hall. It has in it four large recitation rooms, two smaller recitation rooms, and four office rooms. The accommodations afforded the English Department by the change are as good as those enjoyed by any department of the University. For the first time the English Department has its work so arranged that the head of the department can give personal oversight to all the work."

Although a separate chapter of this history will be devoted to the College of Law, the change from rented rooms to a building of its own was an event too important to be omitted in the present time order of

events. The record in the main is taken from the portion of the 1911 report written by Hon. Wm. T. Haines, then President of the Board of Trustees: "The great fire in Bangor, April 30th, 1911, destroyed the building in which the College of Law of the University did its work, on Exchange Street, Bangor—also its entire library. The library was fully covered by insurance and has been replaced by one equally good. After several months' effort to obtain rooms which would be suitable for the continuance of the work in the City of Bangor, we were unsuccessful. The trustees next thought of removing the College of Law to the campus of the University at Orono, but upon further investigation we found there was no room in which to carry on the work in any of the buildings of the University and after a more careful and deliberate consideration, and after talking with many of the leading men of the State, especially members of the legal profession, we decided that the best location for the Law School was at Bangor and we voted to permanently locate it there. Having done this, there seemed to be no other way but to purchase quarters in which the College of Law could be established; and after looking at several pieces of property, more or less adapted to this use, we finally decided to buy the so-called 'Isaac Merrill Estate' situated at the corner of Union and Second Streets in the City of Bangor. This is one of the finest pieces of property in that city. The house is of brick and stone, beautifully finished and thoroughly equipped with modern steam, water, and gas apparatus, and the rooms were so large and commodious as to require no changes for our immediate use. The building is so situated upon the lot that another building, if ever needed, can be erected upon the

westerly side, giving ample room for the two buildings. The price asked (\$37,500) seemed extremely low for the property. We learned that it had cost more than double that sum, and it was in most thorough and complete repair in every particular. While we had no available funds at our command, with which to pay for this property, we felt that the exigencies of the case demanded that we make an effort to buy it, and we did so, and arranged for the payments to be made in the future, as we trust and hope the financial affairs of the institution will warrant." Three years later, through the generosity of Hon. D. D. Stewart of St. Albans, Maine, the debt on this building for the College of Law, amounting to more than thirty-three thousand dollars, was cancelled with funds given by Mr. Stewart for this purpose. "This timely and liberal gift on his part merits and will receive not only the gratitude of those immediately connected with the University but of the people of Maine generally." (Report, 1914. Hon. S. W. Gould, President of the Trustees.)

Looking forward to a larger attendance of women in the University, President Aley, in the report of 1911, thus refers to a need which ought soon to be provided for: "The opportunities offered by the work in Domestic Science and the general opportunities offered in the College of Arts and Sciences are attracting women to the University in increasing numbers. If the University is to meet the desire of women to attend the institution, it will be necessary at an early date to provide more accommodations than are at present afforded. An addition might be built to the Mt. Vernon House so as to double the capacity of that building. This would meet the needs for a year or two."

In the same report, the cosmopolitan character of the faculty and the value of this fact, are thus referred to: "It is interesting to note that the members of the faculty of the University have been prepared in sixty-two of the leading colleges of America and Europe. Nearly every college of note north of Mason and Dixon's line and east of the Rocky Mountains is represented. Those who have had the duty of selecting members of the faculty in the past have shown great wisdom in choosing men from so many different institutions. If the strength of the University is to be maintained, this policy must be continued in the future. In the complex work of educating men and women, there is needed every possible point of view. Hence, it is necessary that every possible kind of educational advantage should be represented in the faculty."

In 1912, the total enrollment of students was slightly in excess of 1,000, realizing in a way an ambition shared by many, that the University should reach the thousand mark. This enrollment contains the Summer School students and those in the short winter courses in Agriculture.

The writer's ambition, expressed many years ago when the "pioneer period" was safely passed and the "development period" well established, was in effect that he hoped to live to see 1,000 students at the University. He had in mind students in the longer courses. From present indications, the day is not very remote when his hope or ambition in this regard may be realized. Recalling the twelve students enrolled at the opening of the institution forty-seven years ago, he is impressed by the fact that the increase will very soon reach the hundred fold mark.

Of the 1011 students in all departments and courses

of the University reported in 1912, seventy-seven were young women. Mt. Vernon House, by crowding, accommodates twenty-seven. The need of an addition to the Mt. Vernon House or of a new dormitory for women was thus emphasized.

Other needs likewise emphasized included additional equipment, especially for the Colleges of Agriculture and Technology, a new dairy barn, a testing laboratory for the Engineering Departments, and a building for the Departments of Physics and Chemistry.

Since the four-year appropriation made by the Legislature of 1909 would expire in 1912, it was necessary to ask for an emergency appropriation for current expenses of the University from January 1, 1913 to June 30th of the same year. For the running expenses of the University, the appropriation needed from the State was estimated to be \$110,000 a year.

The report for the year 1912-13 refers again to the enrollment of 1011 students. Of these 804 were from the State of Maine. All counties were represented, and no county by less than ten students. The 207 remaining students came from fourteen other states and four foreign countries. Of the 1011 enrolled, 747 were candidates for degrees.

The Legislature of 1913 made the necessary appropriations for the running expenses of the University, and in addition, for the construction of two much needed buildings, namely, a building for the Departments of Physics and Chemistry, and one wing of a dormitory for women.

In the report above referred to, President Aley gives in condensed form the leading functions of a State University. He thus indicates its range and mission: "It is now generally recognized that a State



ALBERT HALL

University exists for three definite purposes: It must conserve and transmit knowledge; it must extend the boundaries of knowledge; it must carry to the people in a form ready for application the best results of classrooms and laboratories. The rapid growth in attendance has compelled the University of Maine to devote most of its energy to the conservation and transmission of knowledge. It grows each year increasingly difficult to meet the actual class-room needs. One division of the University, the Experiment Station, gives its entire time to the extension of knowledge. The best results, however, cannot be attained in the other departments of the institution unless the professors are encouraged to do a reasonable amount of research work. For several years the College of Agriculture, through its extension department, has been carrying knowledge to the farmers of the State and showing them how to apply it. The demand from the people for other forms of knowledge is growing. It is as much the business of the University to help the people in the solution of other problems as it is to help them in the work of agriculture. During the last year, a beginning was made in extension work by other departments of the University. We expect to extend and strengthen this work during the coming year."

The report for the year ending June 30, 1914, indicates the progress made in the construction of the two buildings for which provision was made by the Legislature of 1913. In the trustees' portion of the report the progress is thus stated: "The wing of the women's dormitory for which the last Legislature made an appropriation is now completed and filled to its capacity and more room is needed to take care of the young women who are coming to the University in constantly

increasing numbers. * * * The new Physical-Chemical Laboratory is nearly completed and ready for occupancy, and is the largest and most imposing building on the campus. This will be one of the finest and best appointed buildings of its kind in New England. Both of these structures have been erected within the appropriation made by the State for that purpose." The women's dormitory has received the name of Balentine Hall, and the building for the departments of Physics and Chemistry, the name of Aubert Hall.

For the year 1913-14, the number of candidates for degrees was reported to be 101 larger than for the preceding year. The teaching faculty numbered 113 and the Experiment Station staff 14, making 127 in all.

The needs reported for the Legislature of 1915 were the following: "The completion of the women's dormitory, a modern dairy barn and suitable building for dairy instruction and demonstration, a small administration building, the offices for the President, Registrar, Treasurer and Dean being inadequate for efficient work, and one unit of a Mechanical Laboratory. This latter building is required "to house apparatus now located in the old heating plant, and to take care of the actual needs of the department of Mechanical Engineering."

In addition, Dr. Aley further stated: "We should also ask the Legislature to meet the terms of the Smith-Lever Agricultural Extension Act. By the provisions of this act the State of Maine will receive from the federal government the sum of ten thousand dollars yearly for extension work in Agriculture and Home Economics, to be expended under the direction of the College of Agriculture of the University of Maine. There will also be available from the federal treasury,

additional amounts increasing in certain definite proportions for eight consecutive years, provided equal amounts shall be appropriated by the State."

The total amount that may be available for extension work under this plan ranges from \$10,000 to nearly \$70,000 a year, for the next eight years, or from 1914-15 to 1922-23.

The Alumni Bulletin issued in March, 1915, contains a record of legislative action, session of 1915, relating to the University. In this bulletin the following facts appear: The Legislature granted for maintenance, in addition to the regular appropriation of \$110,000 a year, the sum of \$12,500, making \$122,500 for this purpose for the year 1915 and the same sum for the year 1916. Coupled with this bill granting increase for maintenance were two important provisions which were adopted. By the first, after July 1, 1915, all students from out of the State are required to pay \$100 a year tuition, in addition to charges for incidentals and registration. By the second, printing for the University must be paid for out of University funds. For buildings, \$65,000 were appropriated, \$25,000 for barns and \$40,000 for the completion of Balentine Hall. The Smith-Lever Act was accepted and the University of Maine designated to receive the government aid which it provides. The Legislature appropriated \$4,389 for 1915-16, and \$8,047 for 1916-17 to meet the terms of the act, thus making available additional government aid amounting to \$14,389 in 1915-16, and \$18,047 in 1916-17. These amounts are to be used for agricultural extension work in Agriculture and Home Economics.

"The appropriation for instruction in Forestry and the forest nursery were continued, as was that of \$5,000

a year for investigations in animal breeding now being carried on by the Agricultural Experiment Station. The sum of \$13,000 was appropriated for payment of the balance due on the Aroostook Farm, and \$5,000 a year for two years for its maintenance. The thanks of the State for the gift of Hon. D. D. Stewart of St. Albans to the University for the benefit of the College of Law were extended in a legislative resolve."

The number of students registered in 1914-15 was 1129. The catalogue for 1915-16 will show an increase of 131 or 1260 in all. This number includes Summer School students and those in the Short Courses. The number in the recently admitted Freshman Class is 381, and the number of new students 464. Of the full number, 1260, precisely 200 are from without the State, and 1060 from the State of Maine. The women students number 170, or 13.5% of the whole number.

In addition to 45 graduate students, the classification by Colleges shows the following results:

College of Agriculture	330
College of Arts and Sciences	342
College of Law	95
College of Technology	448
	<hr/>
	1215

Adding for graduate students 45, we have as before, the whole number, 1260.

The number of candidates for degrees is shown by the following classification:

College of Agriculture	242
College of Arts and Sciences	287
College of Law	69
College of Technology	440
Candidates for advanced Degrees	45
	<hr/>
	1083

The members of the faculty number 144, without including County Demonstrators in extension work. The number, with these included, is 154.

From the historical data for the past five years, it is evident that the administration of Dr. Aley is proving vigorous and progressive.

It is evident also that what has been termed the "pioneer period" is now long passed, and that the "period of development," now a quarter of a century old, has become fully and firmly established.

If confirmation were needed, it would surely be found in the statistics which have just been submitted and in the granting to the University, by the Legislature of the State, appropriations for 1915-16, amounting to more than a third of a million dollars. This is not only a recognition of the value of past services, but an expression of the regard and good will in which the institution is now held. Its friends may well rejoice in its present prosperity and in its constantly enlarging field of opportunity and service. Under the continued careful management of Dr. Aley and those associated with him, they can look forward with hope and confidence as time goes on to its still larger service and wider usefulness.

In drawing to a close the time-order of events under the successive administrations, the writer desires to express his heartfelt gratitude that the educational service which, with others, he was privileged to inaugurate nearly half a century ago has so greatly prospered.

He has a conviction that the different presidents, whose administrations have passed in review before us, came to the service at the right and opportune time, each with a mission to accomplish. In other words, he believes that the philosophy of history applies to

even the brief period under notice, and that God has overruled for the best the events in the history of the College and University. His devout and earnest prayer is that Divine Wisdom may continue to guide in all its affairs, and that the Divine Favor and Benediction may continue to rest upon our beloved University through the coming years.

CHAPTER IX

HITHERTO OMITTED OR MISCELLANEOUS ITEMS

THE heading of this chapter recalls to mind a dream which the writer had some fifteen or twenty years ago. As he came to consciousness, he found himself laughing aloud as he recognized the ludicrous nature of his dream in which he saw a prescription being filled by a druggist. It read something like this:

$\frac{1}{2}$ oz. of sarsaparilla
10 grains of oil of cedar
2 oz. of sassafras

and so on through a long list, at the bottom of which these words appeared: "These ingredients in the quantities named are to be left out."

Pertaining to this history there is a long list of hitherto omitted and miscellaneous items which are marked, "to be let in." This list contains data which could not be well included in the time-order of events under the different administrations, but which ought not to be omitted altogether, and in which the time-order is not essential.

The items admitted will be treated under appropriate headings, beginning with the following:

ATTITUDE TOWARD THE COLLEGE OR UNIVERSITY

This relates to the attitude of other institutions, and other organizations or bodies of men, and also to that of individuals. In general, it should be said that the

attitude of the other colleges in the State has been cordial and kindly. On a few questions, naturally and almost unavoidably, sentiments and opinions have differed, but as these questions, one after another, have settled themselves or been settled, the differences have been minimized or have ceased to exist. The spirit generally prevailing has been broad-minded and large-hearted, as befits institutions of the higher learning.

For twenty-five years, the writer's relations to the Maine State College were such that it was one of his duties to bear a part in securing needed appropriations from the State legislature. He remembers most gratefully the valuable aid to the State College rendered through all these years by the representatives in the legislature of the other colleges of the State. With here and there an exception, they could be depended upon to assist by voice and vote. They proved their broad-mindedness and large-heartedness in a period when such qualities in Maine legislators were vital to the life and success of a struggling institution. In the main, this attitude, which it is a pleasure to recognize, has been continued in the later years.

In an earlier chapter, reference was made to the attitude of the State Board of Agriculture before the opening of the College and subsequently. Through many years, the College had the benefit of its active and efficient coöperation.

The Maine State Grange was a large organization and hence a number of years was required for mutual acquaintance. Certain individual members, however, were early active and influential in the legislature in the interests of the College. Later, it came to be understood that the College and the Grange along certain lines were working toward the same ends and that in

these regards their interests were mutual. It has thus come about that the two organizations have proved largely helpful to each other.

After all, the individual attitude has been the determining factor in securing or providing support for the College and University, and this attitude has depended largely upon acquaintance and knowledge. Not a few instances are recalled when members of the legislature who had spoken and voted adversely to the College, on visiting it later, becoming acquainted with it, and getting first-hand knowledge of it, reversed their attitude and thereafter, as they had opportunity, spoke and voted in its favor, and showed themselves its warm friends. One exception is worthy of record. A new barn had recently been completed, and a legislative committee was on a visit of inspection. It was known that one member of the Committee was stubbornly opposed to any appropriation or to the promoting of the interests of the College in any way. After inspection of the barn above and below, one of the Committee remarked to the resisting member, "Well, Senator, this looks pretty well, doesn't it?" The old gentleman planted his feet firmly, brought his arms down rigidly with fists clenched, straightened up and replied, "*I won't be* convinced." That settled it, so far as he was concerned. He lived and died in the faith. This is "the exception that proves the rule."

Usually, be it said to their credit, legislators have approached the College or University problem with open minds. To the extent that this has been true, their further acquaintance with it and knowledge of it have assured for it satisfactory results.

ALUMNI ASSOCIATIONS

It has seemed best, in the main, not to include in this history data obtainable from the annual catalogues. While this plan, thus far, has been largely followed, it seems desirable to depart from it to the extent of including the names of the Alumni Associations, a proper reference to the various organizations and clubs now existing in the University, together with lists of the University and student publications.

The principal data are taken from the catalogue for the academic year 1914-15, with the names of officers omitted since they are subject to change from year to year. The object of the Alumni Associations is briefly stated thus: "These associations have been organized for the purpose of extending the influence of the University and keeping alive its spirit in various sections of the country. They have rendered efficient service in promoting the interests of the University."

NAMES OF THE ALUMNI ASSOCIATIONS

General Association.

Advisory Council, made of eleven members at large and one representative from each of the four Colleges in the University, making fifteen members in all.

College of Law Alumni Association.

Alumni of the School and Teachers' Courses in Agriculture.

West Maine Association.

Boston Association.

New York Association.

Western Association.

Washington, D. C., Association.

Penobscot Valley Association.

Pittsburgh, Pa., Association.

Androscoggin Valley Association.

Pacific Association.

ORGANIZATIONS

Agricultural Club. This organization is composed of students taking agricultural courses. Meetings are held throughout the college year.

American Chemical Society. The Maine section of this Society has its headquarters in Orono.

American Institute of Electrical Engineering. Membership in the Maine branch is extended to members of the Electrical Engineering faculty, students pursuing the Electrical Engineering curriculum; and to members and associate members of the American Institute.

American Society of Mechanical Engineers. A regularly organized branch of this society holds regular meetings for the presentation and discussion of engineering papers by members and by visiting engineers.

Cercle Francais. Its object is to cultivate the spoken French language. The work is carried on in French. Papers are read and discussed, and addresses delivered by the members. Plays are studied with a view to their production in French. Meetings are held once in two weeks.

University of Maine Society of Civil Engineering. Composed of students pursuing Civil Engineering. Monthly lectures are given by members of the faculties of this and other institutions and by practicing engineers.

Deutscher Verein. This society, organized in 1902, is composed of teachers and students. Its purpose is to stimulate interest in the various phases of German life and literature and afford practice in speaking German. Meetings are held every three weeks during the academic year.

Forestry Club. For students majoring in forestry. Its purpose is to give opportunity for presenting informal discussions and technical papers on forestry subjects. Meetings are held semi-monthly.

Maine Masque. This is a dramatic club which aims to make a practical study of the acted drama, and to present each year before the public one or more representative plays. Membership is determined by competitive trials to which all men undergraduates are eligible.

Pharmaceutical Association. Students majoring in Pharmacy eligible. Lectures are given at various times during the year by men prominent in the profession. Meetings are held semi-monthly.

Christian Association. This association, composed of men students, has for its object the promotion of Christian fellowship and aggressive Christian work. Religious services are held in the library building, and classes for the study of the Bible are conducted on Sunday. A Christian Association has existed in the institution from its early years. At first, its meetings were simply for prayer services, but as time went on, it supplemented these services with other forms of Christian activity.

Young Women's Christian Association. This is an organization for religious work composed of women students.

Musical Clubs. These organizations, both vocal and instrumental, have long held a conspicuous place in the life of the institution.

Athletic Association. Here as elsewhere, this organization has been prominent in the interests of the student body. From the first it has stood for clean athletics, and hence has achieved an honorable record. The record for this autumn just closed includes the State Championship in Football and in the Cross-Country Run, the New England Championship in the Cross-Country Run, and the American Intercollegiate Championship in the Cross-Country Run, made at Boston on November 20, 1915, with the following named teams in competition: Cornell, Princeton, Dartmouth, Pennsylvania, Harvard, Syracuse, M. I. T., Yale, Michigan, Columbia, and Brown. The last named Championship won by U. of M. was wrested from Cornell which had held it for eleven consecutive years.

HONOR SOCIETIES

Alpha Chi Sigma. This is a professional fraternity with chapters in various American colleges and universities. The members are elected from those whose major work is in the department of Chemistry.

Alpha Zeta. The Maine chapter of Alpha Zeta, the national agricultural fraternity, was organized at the University in 1905. Chapters exist in fourteen other universities. Membership is honorary and is restricted to those attaining high class standing or to those who have shown marked ability along the lines of agricultural study and research.

Phi Kappa Phi. The Phi Kappa Phi is an honorary society, dedicated to the unity and democracy of education, and open to honor graduates of all departments of American colleges and universities. Like Phi Beta Kappa, it requires the highest class standing for membership. It originated in the University of Maine in 1897 and now has chapters in fourteen different states.

Tau Beta Pi. Tau Beta Pi is an honor fraternity for engineers and has chapters in leading universities and technical schools. Elections to the fraternity take place twice a year, and are made from those juniors and seniors in engineering who have shown high mental and moral qualifications.

CURRENT UNIVERSITY PUBLICATIONS

Annual Report of the Trustees, President and Treasurer, to the Governor and Council of the State. The report of the Trustees and President includes an account of the general affairs and interests of the University for the year, and the report of the Experiment Station.

University of Maine Studies. These are occasional publications containing reports of investigations or researches made by university officers or alumni.

Maine Bulletin. This is a publication issued monthly during the academic year to give information to the alumni and the general public. Among recent issues are bulletins relating to the Classical Curriculum, the Curricula in Agriculture, the Curriculum in Pharmacy, the College of Law, the College of Arts and Sciences, the College of Technology, the Curriculum in Forestry, the Courses in Education, the Summer Term, and Directories of Alumni and Non-Graduates.

Timely Helps for Farmers. This is a monthly publication issued in the interest of the farmers and schools of the State by the division of Agricultural Extension.

Annual Report of the Experiment Station and the Experiment Station Bulletins. These give complete results of the work of investigation of the Station.

Official Inspections. These are published by the Experiment Station, and contain the results of the work of inspection of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides, and insecticides. The *Bulletins* and *Official Inspections* are sent free on request to any resident of Maine.

STUDENT PUBLICATIONS

List and Notes kindly furnished by Professor
R. K. Jones, Librarian.

The Crucible. August, 1873, and August 1874. Published by the Literary Fraternity.

College Reporter. 5 vols. Monthly. October, 1874-November, 1878.

The College Review. Monthly. April-August, 1876. Absorbed by *College Reporter*.

The Pendulum. One oscillation per annum. Published by the Fraternities; Q. T. V. and Beta Theta Pi, 1881; Beta Eta of Beta Theta Pi, 1882, 1883, and 1884; Beta Eta of Beta Theta Pi and the K. K. F. Society (now Psi Chapter of Kappa Sigma), 1885.

The Transit. Annual. 1884 and 1885. Published by the Orono Chapter of the Q. T. V. Fraternity (now the Omega Mu Chapter of Phi Gamma Delta).

The Cadet. Monthly. 13 volumes, 1885-99. Continued as *The Campus*. Name changed to *The Maine Campus* with issue of June 1, 1904. Bi-monthly and weekly. 1899—

The Prism. Annual. Published by the Junior Class. 1894—

The Blue Book. Irregular. 3 volumes, 1906-08. Revived in 1915.

Maine Law Review. Published by the students of the College of Law, monthly, during the college year. 1908—

Practical Husbandry of Maine. Published by the students of the College of Agriculture. Quarterly. 1910—

In addition to the above there has been published the *University of Maine Handbook*, by the Christian Association, annually, beginning in 1895.

There has been published also, by the Sophomore Class, a calendar, beginning about 1902, the exact date being uncertain.

Another publication is the *Omega Mu*, published by the Omega Mu Chapter of the Phi Gamma Delta Fraternity in 1901, containing a history of the chapter.

BACCALAUREATE ADDRESS ON ALTERNATE YEARS

When I was a student in Bowdoin College from 1857 to 1861 the baccalaureate services were looked forward to with very great interest. They furnished the annual occasion when the venerable President, Rev. Leonard Woods, D. D., preached a sermon, elegant in diction, cogent in reasoning, and masterful in the presentation of the theme selected. The address to the graduating class was always most impressive. The largest audience room to be commanded was never too large for these occasions.

From experience at my *Alma Mater* and from observation elsewhere, I had become possessed of the idea that the baccalaureate discourse was a presidential function and that the President should be a minister. While Dr. Allen was President at Orono, the needful conditions, as they existed in my mind relative to the baccalaureate discourses, were perfectly met, inasmuch as he came from service in the ministry to service in the College.

Later, when a layman became President, the question as to some plan for the baccalaureate service under the new conditions had to be settled. It was decided that the President should give the sermon or address every other year and that on the alternate years, representative clergymen of different religious denomina-

tions should be invited to render the service. This plan was a personal one and was strictly followed during my own administration from 1879 to 1893.

My successors in the presidential office have all been laymen and have given the baccalaureate address at times themselves but more frequently have invited other persons, either ministers or laymen, to perform this service. It is hardly necessary to add that, through all the history of the College and University, the baccalaureate services have proved impressive, uplifting, and inspiring, in a very high degree.

The names, with the dates of engagement of those who have thus kindly borne a part with the different presidents on these important occasions, are herewith added as an essential part of these records.

- 1879, June 22, Rev. Cyrus Stone, D. D., of Bangor, Maine.
1881, June 26, Rev. W. W. Lovejoy, of Calais, Maine.
1883, June 24, Rev. John S. Sewall, D. D., of Bangor, Maine.
1885, June 21, Rev. A. K. P. Small, D. D., of Portland, Maine.
1887, June 26, Rev. Thomas Hill, D. D., of Portland, Maine,
Ex-President of Harvard University.
1889, June 23, Rev. Charles F. Allen, D. D., Former President
of the Maine State College.
1891, June 21, Rev. Amory Battles of Bangor, Maine.
1893, June 25, Rev. J. S. Williamson of Augusta, Maine.
1895, June 16, Rev. Martyn Summerbell of Lewiston, Maine.
1897, June 20, Rev. James M. Buckley, D. D., LL. D., of New
York, N. Y.
1899, June 11, Rev. S. C. Beach of Bangor, Maine.
1900, June 10, Rev. George L. Hanscom of Newark, N. J.
1901, June 9, Dr. Whitman H. Jordan of Geneva, N. Y.
1903, June 7, Professor Nathaniel Butler, D. D., of Chicago,
Illinois.
1905, June 11, Professor Edward Howard Griggs of New
York, N. Y.
1906, June 10, Rev. Frank Channing Haddock, D. D., of Au-
burndale, Mass.

- 1907, June 9, Professor Alfred W. Anthony, D. D., of Lewiston, Maine.
1908, June 7, Professor Edward Alsworth Ross, of Madison, Wis.
1909, June 6, Rev. Smith Baker, D. D., of Portland, Maine.
1910, June 5, Rev. Frederick A. Bisbee, D. D., of Boston, Mass.
1912, June 9, Rev. Alson H. Robinson of Newton Centre, Mass.
1913, June 8, Hon. Charles L. Donohue, of Portland, Maine.
1914, June 7, President Guy Potter Benton, D. D., LL. D., of Burlington, Vt.
1915, June 6, President Elmer Burritt Bryan, LL. D., of Hamilton, N. Y.

A CHANGE OF CUSTOM AT COMMENCEMENT

Prior to 1909, the prevailing custom relative to speakers for Commencement exercises obtained at this institution; that is, the speakers were appointed from the graduating class. Such appointments were regarded as high honors. The change of custom made in 1909 has obtained since that date. Instead of members of the Senior Class giving the orations, some person of prominence has been invited to give the Commencement Address each year.

The names of those who have rendered this service are herewith given:

- In 1909, Professor Bliss Perry, L. H. D., LL. D., of Harvard University.
In 1910, Edward Howard Griggs, L. H. D., of Montclair, N. J.
In 1911, President David Nelson Beach, D. D., of Bangor Theological Seminary.
In 1912, Rev. M. Joseph Twomey, Pastor of the First Baptist Church, Portland, Maine.
In 1913, Rev. David Nelson Beach, D. D., President of the Bangor Theological Seminary.

In 1914, Hon. Thomas R. Marshall, LL. D., Vice President of the United States.

In 1915, Hon. Samuel W. McCall, LL. D., of Winchester, Mass.

DISCIPLINE

The system of coöperative government which has obtained in one form or another since 1873 has proved of large value, especially as regards the milder cases of discipline. From the first the understanding has been, as stated in an earlier chapter, that the government could be coöperative to the extent that it should prove itself efficient. This fact has furnished a background favorable to good government.

For cases of such nature that the coöperative system has seemed inapplicable or inadequate, the delegated authority has reverted to the faculty, and the needful disciplinary power has been exercised necessarily by this body. These exceptional cases have really been few in number, so readily have the students in general responded to the better impulses of human nature and shown themselves self-respecting and self-regulating in conduct. These exceptional cases, when they have occurred, have arisen more frequently than otherwise from what is denominated hazing. Every administrative officer knows that, if this evil creeps into an institution, the only efficient remedy of it is vigorous treatment, the only kind that those engaged in it will respect.

What I am especially desirous of presenting under this subject of discipline, is the wholesome attitude, as I regard it, of both trustees and faculty in the more serious cases which have arisen in the history of the College and University. As illustrative, I select a

single case which I consider representative of the attitude and spirit which have obtained in dealing with all the cases. This was reported by Hon. Lyndon Oak, at the time President of the Board of Trustees, as follows:

“COLLEGE DISCIPLINE

“The usual regular and even flow of affairs at the College was interrupted during the fall term by an unusual disturbance. It was one of those disturbances which, in college parlance, is characterized by the innocent name of ‘hazing.’ Six students, confessing their complicity in the affair, were suspended, three of them for the remainder of the term (now closed) and three of them for the remainder of the current college year. In the absence of the confession made, the penalty would have been unconditional expulsion. Following the announcement of the punishment awarded to the offending six, a majority of all the students absented themselves from recitations, presumably to compel the faculty to restore the offenders to the privileges of the institution. The students so absenting themselves were summoned and asked the question, whether they intended to return to the regular work of the College, and those giving a negative answer were immediately suspended. They were subsequently allowed a reasonable time to reconsider the matter, reverse their decision and pledge future obedience to college authority, which, if done, the act of suspension would be recalled. All to whom this privilege applied complied with the requirements before the expiration of the time allowed them, and resumed their relations to the College.

“While entertaining no unkind feelings towards the students, the Trustees could not do otherwise than

to give their entire approval of the action of the Faculty. The question that confronted its members was: Shall we retain the disciplinary powers of the institution or surrender them to the students? Only one answer was possible. That answer was given without hesitation. It was the only answer that would have commanded the approval even of the offending students themselves. It was the only answer that would have satisfied the friends of the College; and the institution comes from the ordeal healthier, stronger, and better by virtue of the intelligent and decisive action of the Faculty.

"It is proper to say in this connection that parents who commit their sons to the guardianship of the College have the right to demand that they shall be protected against the abuses, the humiliation, the liability to serious personal injury and possible fatal results, involved in the barbaric practice of hazing."

Fortunately, as has been stated, the coöperative system of government has been adequate to the adjustment of a large proportion of the cases of discipline. In the more serious cases, it is gratifying to remember that merited discipline has rarely jeopardized the cordial personal relations between the administrative officers and the students involved. It has given the writer great satisfaction that he has had occasion to count *his disciplined men* as among his warmest friends. His experience in this regard, he is confident, has been the experience likewise of all whose fortune it has been to hold the executive office.

GRATUITOUS SERVICES OF THE TRUSTEES

Few people in the State have been aware of the amount of gratuitous service involved in an appoint-

ment to the Board of Trustees, especially in the earlier years. The following statement is from the report of 1881, by Hon. William P. Wingate, then President of the Board. "For a period of fourteen years, each acting member of the Board of Trustees has, at the call of the State, performed service for the State College varying from six to twelve days each year without compensation. Some of the trustees have, in several instances, performed more than twenty-five days of gratuitous service in a single year. They have done this because the State has asked them to do it and the interests of the institution demanded it. They have done it cheerfully, because their close relations to the institution, and intimate acquaintance with its character and purposes have impressed them with the conviction that it is very important that it should be sustained. Having thus promptly and cheerfully responded to the call of the State without any hope of personal advantage, they believe that in turn they may, with absolute propriety, ask the State for such moderate appropriations as are clearly needed from year to year, and that the request should receive a favorable response."

Travelling expenses were paid, but the services of the trustees remained gratuitous for nearly thirty years. In 1897 the legislature provided for the trustees a per diem of two dollars and travelling expenses. In 1905, this per diem was increased to five dollars, with travelling expenses also provided for. In 1911, the per diem was taken away and actual expenses only provided for. It has thus come about, that, except actual expenses incurred, the gratuitous service of the trustees still obtains. To their credit, it should be said that, whether paid or unpaid, their fidelity to their trust has remained constant.

SUNDRY BRIEFER TOPICS

Leasing Houses to Fraternities

The leasing in 1886 of the "Frost" house, now known as North Hall, to the Beta Theta Pi Fraternity and in 1889, the leasing of the "White" house, now enlarged and known as Mt. Vernon House, to the Q. T. V. society, now the Phi Gamma Delta Fraternity, was a movement in the right direction. It not only provided homes for these fraternities, but, in virtue of the transfer of students, provided rooms needed for other students. It was, moreover, the first step toward the building of fraternity houses.

So satisfactory had been the experience of leasing to the Beta Society, that when application was made by the Q. T. V. Fraternity, a lease was arranged for seven years, and the transfer of twenty-five men was directly made to the new quarters.

Planting Trees in the Early Days

The luxuriant growth of trees now on the Campus was not all of nature's devising. The hand of man had much to do with it. Students in the early days set out trees and men serving the College in various capacities did the same. To this thoughtfulness, we are indebted for very many of the beautiful trees that now adorn the Campus. If the work were overdone at any point, that fault can be easily remedied; if not sufficiently done, our thoughtfulness in remedying the defect will win the gratitude of those who shall come after us.

Early Prizes and Gifts

The earliest giver of money for prizes was Ex-Governor Abner Coburn, to whom the College was indebted for the prizes awarded at the Sophomore and

Junior Exhibitions from 1871 to 1884. From 1885 to 1900, the prizes awarded in the Sophomore Class for excellence in declamation, and the Junior Class for excellence of composition were given by Mrs. H. E. Prentiss of Bangor, or in her name. They were known as the "Prentiss Prizes." The gracious generosity of Madame Prentiss was shown when, after having given the prizes for two years, she informed the writer that she would continue to give them so long as she should live. She kept her word, always as good as her bond. In 1886, Hon. Samuel Libby of Orono established a prize to be awarded to the writer of the best essay on an agricultural subject. Mr. Libby maintained it during the period of his active life.

From 1888 to 1893, prizes were awarded in the Sophomore and Freshman Classes for the "highest standing in scholarship and deportment." These prizes of thirty dollars a year were given by a lady who desired that while she was living, her name should not be disclosed. Now that she is no longer living, the seal of silence can be broken with propriety. The recipients of these awards were indebted to Miss Almira K. Hasty of Portland, Maine, for the recognition given for their high standing. The first students to receive these prizes were Chandler Cushman Harvey of Fort Fairfield, Sophomore in 1888, and Leslie Albert Boadway of Orono, Freshman, the same year.

The "Franklin Danforth Memorial Prize" was established in 1890 by Edward F. Danforth, Esq., of Skowhegan, Class of 1877, to be given to the student attaining the highest standing in the agricultural course in the senior year. This prize is still continued.

The "Kidder Scholarship" of thirty dollars a year in aid of some member of the Junior Class was estab-

lished in 1891, by Frank E. Kidder, C. E., Ph. D., Class of 1879. This scholarship fund is seven hundred and fifty dollars.

The "Nehemiah Kittredge Loan Fund" was established in 1886 by Nehemiah Kittredge, Esq., of Bangor, by a gift of six hundred dollars. Loans can be made from this fund under prescribed conditions. As the loans are paid with moderate interest, the fund slowly increases, and now amounts to more than one thousand dollars.

Other prizes have been established and other gifts have been made as the years have gone by, all referred to in the annual catalogues. The catalogue of 1914-15 announces fourteen prizes and four scholarships awarded at the end of the academic year.

A SECOND FACULTY HONOR ROLL

In Chapter X there appears a list of ten members of the Faculty who have served the College and University between 21 and 40 years. The names are given in four 5-year groups. The 5-year group of those who have served the institution between 16 and 20 years inclusive contains fourteen names which are herewith reported:

Mrs. Elizabeth Abbott Balentine
Dean Harold Sherburne Boardman
Hon. Lucilius Alonzo Emery
Professor Horace Melvyn Estabrooke
Professor Gilbert Mottier Gowell
Professor John Homer Huddilston
Professor Wilbur Fisk Jackman
Professor Ralph Kneeland Jones
Professor Welton Marks Munson
Hon. Louis Carver Southard
Dean William Emanuel Walz

Professor Howard Scott Webb
Professor Charles Partridge Weston
Director Charles Dayton Woods

NOT FORGOTTEN

In the long list of the "Not Forgotten" of the early period, there was no other professor who had served the College for so many years, at the time of his retirement from it, as had Charles H. Fernald, A. M., Professor of Natural History, and no one had served it more faithfully. His term of service of fifteen years was from 1871 to 1886. On retiring from this institution, he accepted a professorship in the Agricultural College at Amherst, Mass., where he has also rendered eminent service and attained wide reputation in his special fields of study and research.

Among Professor Fernald's contemporaries who also served the College ably and efficiently down to later periods of time were Professor Alfred B. Aubert, Professor George H. Hamlin, and Professor Allen E. Rogers. Many others there were whose term of service was short in the period referred to, who still hold an honored place in the list of the "Not Forgotten."

TWO "GOOD AND FAITHFUL SERVANTS"

Reference has been made to the early planting of trees on the college campus. One of the most thoughtful and faithful of men in the matter of gratuitous tree-planting was Mr. Henry M. Lander, steward of the college boarding-house from 1877 to 1884. Students of that period will not forget his fidelity in this, as in other regards, and will bear him gratefully in memory. Many other persons there are, not enrolled as officers of instruction, whose long and faith-

ful service entitles them to special recognition. Among these, no one has devoted himself to the institution through many years with greater fidelity in varying forms of useful service than Mr. Andrew M. Shaw. While special mention is made of Mr. Lander and Mr. Shaw, we do not forget the many others unnamed, who, through faithfulness to their respective duties, have proved themselves alike worthy.



LYNDON OAK

CHAPTER X

TRUSTEES, TREASURERS, FACULTY AND STUDENTS

THIS chapter is designed to furnish a record of the names and the period of service of all the Trustees, Treasurers, Presidents, Deans, Professors and Instructors from the origin of the institution to date, that is, to the autumn of 1915. Under the general head of "Professors and Instructors," officers of investigation as well as of instruction are included. The compilation has been made with care, but probably not without error, although no known error has been allowed to mar the record.

In a short chapter, the entering of the names of students would be entirely impracticable, and hence what is attempted is the giving of the number of graduates and non-graduates in the successive classes, with the numerical relation or ratio existing between the two groups.

ORIGINAL BOARD OF TRUSTEES, 1865-67

Elected by the Legislature, one member from each county in the State

Samuel F. Perley, Naples, Cumberland County	. 1865-6
Nahum T. Hill, Bucksport, Hancock County	. 1865-7
Bradford Cummings, Fort Fairfield, Aroostook County	1865-7
Thomas S. Lang, North Vassalboro, Kennebec County	1865-6
Dennis Moore, North Anson, Somerset County	. 1865-7
William D. Dane, North Perry, Washington County	1865-6
Stephen L. Goodale, Saco, York County	. . . 1865-7
Robert Martin, Auburn, Androscoggin County	. 1865-7
Alfred S. Perkins, Topsham, Sagadahoc County	. 1865-7

Joseph Farwell, Rockland, Knox County . . .	1865-7
Seward Dill, Phillips, Franklin County	1865-7
Joseph Day, Damariscotta, Lincoln County . . .	1865-7
Ebenezer Knowlton, South Montville, Waldo County	1865
Hannibal Hamlin, Bangor, Penobscot County . .	1865-6
Charles A. Everett, Milo, Piscataquis County . . .	1865-6
William Wirt Virgin, Norway, Oxford County . .	1865-7

As vacancies in this Board occurred either by resignation or otherwise, they were filled alternately by the Legislature and by the Trustees. The members thus chosen were:

Isaac Woodman, Montville, Waldo County, 1866-7, elected by the Legislature.

Wm. A. P. Dillingham, Waterville, Kennebec County, 1866-7 elected by the Trustees.

Thomas Brewer, Robbinston, Washington County, 1866-7, elected by the Legislature.

John H. Gilman, Foxcroft, Piscataquis County, 1866-7, elected by the Trustees.

Benjamin P. Gilman, Orono, Penobscot County, 1866-7, elected by the Legislature.

OFFICERS OF THE ORIGINAL BOARD

Hon. Hannibal Hamlin of Bangor, President . . .	1865-6
Hon. William A. P. Dillingham, Waterville, President	1866-7
Hon. Stephen L. Goodale, Saco, Secretary . . .	1865-6
Dr. James C. Weston, Bangor, Secretary . . .	1866-7
Hon. Phineas Barnes, Portland, Treasurer . . .	1865-7

TRUSTEES FROM 1867 TO 1915, INCLUSIVE

Hon. Abner Coburn of Skowhegan, 1867-1879; President of the Board 1867-1879.

Rev. Samuel F. Dike of Bath, 1867-1879.

Hon. William P. Wingate of Bangor, 1867-1884; President of the Board 1879-1883.

Hon. Lyndon Oak of Garland, 1867-1889; Secretary of the Board 1871-1883; President of the Board, 1883-1889.



WILLIAM PALMER WINGATE

- Hon. Nathaniel Wilson of Orono, 1867-1869.
Hon. George P. Sewall of Oldtown, 1867-1868.
Hon. Isaiah Stetson of Bangor, 1867; resigned May 15, 1867.
Hon. Nathan Dane of Alfred, 1868-1869.
Hon. Thomas S. Lang of Vassalboro, 1868-1874.
Hon. Stephen L. Goodale of Saco, 1869-1873 and in 1879; *ex-officio* as Secretary of the Maine Board of Agriculture.
Hon. Samuel F. Perley of Naples, 1869-1874.
Hon. James C. Madigan of Houlton, 1869-1879.
Hon. Samuel L. Boardman of Augusta, 1873-1879; *ex-officio* as Secretary of the Maine Board of Agriculture.
Hon. Sylvanus T. Hincks of Bucksport, 1874-1881.
Hon. Caleb A. Chaplin of Harrison, 1874-1884.
Hon. Luther S. Moore of Limerick, 1879-1886.
Hon. Emery O. Bean of Readfield, 1879-1883.
Hon. Alexander M. Robinson of Dover, 1880-1887.
Hon. Z. A. Gilbert of East Turner, 1880-1889; *ex-officio* as Secretary of the Maine Board of Agriculture.
Hon. Daniel H. Thing of Mt. Vernon, 1881-1888.
Capt. Charles W. Keyes of Farmington, 1883-1890.
Hon. William T. Haines, B. S., of Waterville, 1883-1900 and 1906-1912; Secretary of the Board 1883-1900 and in 1907; President of the Board in 1911-1912.
Hon. E. E. Parkhurst of Presque Isle, 1884-1888.
Gen. Russell B. Shepherd of Skowhegan, 1885-1899; President of the Board 1890-1891.
Arthur L. Moore, B. S., of Limerick, 1886-1900.
Gen. Charles Hamlin of Bangor, 1887-1888.
Rutillus Alden, Esq., of Winthrop, 1888-1895.
William H. Strickland, Esq., of Bangor, 1888-1890; President of the Board 1889-1890.
Hon. Fred Atwood of Winterport, 1888-1891.
Hon. Charles P. Allen of Presque Isle, 1889-1903.
Hon. Rufus Prince of South Turner, 1890-1891.
Hon. Henry Lord of Bangor, 1891-1908; President of the Board, 1892-1908.
Hon. Benjamin F. Briggs of Auburn, 1891-1899.
Greenville J. Shaw, Esq., of Hartland, 1891-1898.
Hon. Elliott Wood of Winthrop, 1895-1907; Secretary of the Board, 1901-1907.

- Hon. Edward Brackett Winslow of Portland, 1898-1911;
President of the Board 1908-1911.
- Hon. Voranus L. Coffin of Harrington, 1899-1906.
- Hon. John A. Roberts of Norway, 1899-1911.
- Hon. Albert J. Durgin of Orono, 1900-1907.
- Edwin James Haskell, B. S., of Westbrook, 1901—.
- Hon. Charles Lester Jones of Corinna, 1903—.
- Hon. Samuel Wadsworth Gould, B. S., of Skowhegan, 1907—;
Secretary of the Board 1908-1913; President of the
Board 1913—
- Hon. Sumner Peter Mills of Farmington, 1907-1914.
- Hon. John Marshall Oak, B. S., of Bangor, 1908-1915.
- Freeland Jones, LL. B., of Bangor, 1911—.
- Oscar Rugg Wish, Esq., of Portland, 1911-1912.
- Hon. William Robinson Pattangall, M. S., of Waterville, 1912-
1915.
- William Albert Martin, Esq., of Houlton, 1913—.
- Hon. William Henry Looney of Portland, 1914—.
- Hon. Frederic Hastings Strickland of Bangor, 1915—.
- Charles Swan Bickford, B. S., of Belfast, 1915—.

TREASURERS FROM 1867 TO 1915

Hon. Isaiah Stetson of Bangor	1867-1879
Col. Eben Webster of Orono	1879-1883
J. Fred Webster, Esq., of Orono	1883-1889
Prof. George Herbert Hamlin of Orono	1889-1896
Hon. Isaiah Kidder Stetson of Bangor	1896-1909
Hon. Charles John Dunn of Orono	1909-

PRESIDENTS

- Merritt Caldwell Fernald, A. M., Acting President, July 15,
1868, to August 31, 1871.
- Charles Frederic Allen, A. M., D. D., President, September 1,
1871, to December 31, 1878.
- Merritt Caldwell Fernald, A. M., Ph. D., President, March,
1879, to September 1, 1893.
- Abram Winegardner Harris, Sc. D., LL. D., President, Sep-
tember 1, 1893, to December, 1901.



WILLIAM THOMAS HAINES



HENRY LORD

George Emory Fellows, Ph. D., L. H. D., LL. D., President, January, 1902, to September 1, 1910.

James Norris Hart, C. E., M. S., Sc. D., Acting President, September 1, 1910, to December 1, 1910.

Robert Judson Aley, Ph. D., LL. D., President, December 1, 1910—.

DEANS

George Enos Gardner, M. A., Dean of the School of Law, 1898-1902.

William Emanuel Walz, M. A., LL. B., Litt. D., Dean of the College of Law, 1902—.

James Norris Hart, C. E., M. S., Sc. D., Dean of the University, 1903—.

James Stacy Stevens, M. S., LL. D., Dean of the College of Arts and Sciences, 1905—.

William Daniel Hurd, M. Agr., Acting Dean of the College of Agriculture, 1905-1906, Dean of the College of Agriculture, 1906-1909.

Harold Sherburne Boardman, C. E., Dean of the College of Technology, 1910—.

Leon Stephen Merrill, M. D., Dean of the College of Agriculture, 1911—.

PROFESSORS AND INSTRUCTORS

Merritt C. Fernald, A. M., Ph. D., LL. D., Professor of Mathematics and Physics, 1868-1879; Physics, Mental and Moral Science, 1879-1891; Mental and Moral Science, 1891-1893; Emeritus Professor of Mathematics, 1896-1898; Professor of Philosophy, 1898-1908; Emeritus Professor of Philosophy, 1908—.

Samuel Johnson, A. M., Instructor in Agriculture and Farm Superintendent, 1868-1871.

Stephen F. Peckham, A. M., Professor of Chemistry, 1869-1871.

Calvin Cutter, M. D., Lecturer on Anatomy, Physiology and Hygiene, 1869-1871.

Corydon B. Lakin, Instructor in Bookkeeping, 1869-1871.

- Capt. Henry E. Sellers, Military Instructor, 1869-1870.
John Swift, B. S., Instructor in Botany and Horticulture, 1870-1871.
Mary L. Fernald, Instructor in French and German, 1870-1871.
X. A. Willard, A. M., Lecturer on Dairy Farming, 1870.
James J. H. Gregory, A. M., Lecturer on Market Farming and Gardening, 1870.
George I. Alden, S. B., Lecturer on Mechanics, 1871.
Alpheus S. Packard, Jr., M. D., Lecturer on Useful and Injurious Insects, 1871.
Edward S. Morse, Lecturer on Comparative Anatomy and Zoology, 1871.
William E. Hoyt, Instructor in Descriptive Geometry and Mechanical Drawing, 1871.
Charles F. Allen, A. M., D. D., Professor of English Literature and Mental and Moral Science, 1871-1879.
William A. Pike, C. E., Professor of Civil Engineering, 1871-1880.
Robert L. Packard, A. M., Professor of Chemistry and Modern Languages, 1872-1873.
Charles H. Fernald, A. M., Professor of Natural History, 1871-1886.
Joseph R. Farrington, Farm Superintendent, 1871-1878; Instructor in Agriculture, 1876-1877 and 1878-1879.
Capt. James Deane, Military Instructor, 1871-1874.
John Perley, Instructor in Bookkeeping, 1872-1874.
C. F. Stone, Professor of Chemistry (Spring term), 1873.
Wilbur O. Atwater, Ph. D., Professor of Chemistry, 1873.
Alfred B. Aubert, M. S., Professor of Chemistry, 1874-1909.
Randal Whittier, Professor of Modern Languages and Mechanics, 1873-1874.
James Law, V. S., Lecturer on Veterinary Science, 1874.
George H. Hamlin, C. E., Assistant in Engineering, 1873-1874; Assistant Professor, 1874-1876; Professor of Drawing and Field Engineering, 1876-1879; Professor of Mathematics and Drawing, 1879-1880; Professor of Civil Engineering, 1880-1898; also Librarian, 1874-1884 and 1886-1888.
Winfield S. Chaplin, Professor of Modern Languages and Military Instructor, 1874-1877.

- Francis L. Hills, Professor of Modern Languages and Military Instructor, 1877-1878.
- Isabel S. Allen, Instructor in German, 1877.
- Timothy G. Rich, Farm Superintendent, 1878-1882.
- Allen E. Rogers, A. M., Instructor in Modern Languages and Military Science, 1879-1880; Professor of Modern Languages and Instructor in Military Science, 1880-1882; Professor of Modern Languages, Logic and Political Economy, 1882-1891; Professor of History, Logic and Civics, 1891-1894; Professor of Civics and Logic, 1894-1897; Professor of Political Economy, History and Constitutional Law, 1898-1901; Professor of Civics and Constitutional Law, 1902-1908; also Librarian, 1884-1886.
- Whitman H. Jordan, M. S., Sc.D., LL.D., Instructor in Agriculture, 1879-1880; Director Maine Agricultural Experiment Station, 1888-1896; Professor of Agriculture, 1894-1896.
- Wilbur F. Decker, B. M. E., Instructor in Shop-work, 1879-1880.
- Charles H. Benjamin, M. E., Instructor in Mechanical Engineering, 1880-1881; Professor of Mechanical Engineering, 1881-1887.
- Walter Balentine, M. S., Instructor in Agriculture, 1881-1882; Professor of Agriculture, 1882-1887; Professor of Agriculture and Agriculturist to the Experiment Station, 1887-1894.
- Walter Flint, M. E., Instructor in Vise-work and Forge-work, 1881-1887; Registrar, 1887; Professor of Mechanical Engineering, 1887-1902.
- Edgar W. Howe, 2d Lieut., 17th Infantry, U. S. A., Professor of Military Science and Tactics, 1882-1885.
- Gilbert M. Gowell, M. S., Farm Superintendent, 1882-1887; Instructor in Practical Agriculture, 1891-1893; Professor of Animal Industry, 1893-1896; Professor of Animal Industry and Agriculturist of the Experiment Station, 1896-1903; Professor of Animal Industry, 1903-1905; Professor of Animal Industry, in Charge of Poultry Experiments in the Experiment Station, 1905-1907.
- Charles L. Phillips, 2d Lieut., 4th Artillery, U. S. A., Professor of Military Science and Tactics, 1885-1888.

- Francis L. Harvey, M. S., Ph.D., Professor of Natural History, 1886-1893; Professor of Natural History and Entomologist of the Experiment Station, 1893-1900.
- James N. Hart, C. E., M. S., Sc.D., Instructor in Mathematics and Drawing, 1887-1890; Professor of Mathematics, 1890-1891; Professor of Mathematics and Astronomy, 1891—; Acting President from September 1, 1910, to December 1, 1910.
- Howard S. Webb, M. E., E. E., Instructor in Shop-work, 1887-1896; Registrar, 1888-1889; Secretary and Registrar, 1890-1894; Instructor in Mechanical Engineering, 1896-1899; Professor of Electrical Engineering, 1899-1905.
- James M. Bartlett, M. S., Chemist in the Experiment Station, 1888—
- Lucius H. Merrill, B. S., ScD., Chemist in the Experiment Station, 1888-1897; Instructor in Biological Chemistry and Chemist in the Experiment Station, 1897-1898; Professor of Biological Chemistry and Chemist in the Experiment Station, 1898-1906; Chemist in the Experiment Station, 1906-1907; Professor of Biological and Agricultural Chemistry and Chemist in the Experiment Station, 1907-1908; Professor of Biological and Agricultural Chemistry, 1908—
- Everard E. Hatch, 2d Lieut., 18th Infantry, U. S. A., Professor of Military Science and Tactics, 1888-1891.
- Fremont L. Russell, B. S., V. S., Instructor in Veterinary Science, 1889-1890; Veterinarian of the Experiment Station, 1889-1895; Instructor in Biology and Veterinarian of the Experiment Station, 1895-1898; Professor of Biology and Veterinarian of the Experiment Station, 1898-1908; Professor of Bacteriology and Veterinary Science and Assistant Biologist of the Experiment Station, 1908-1909; Professor of Bacteriology and Veterinary Science, 1909—
- Fred P. Briggs, B. S., Assistant in Natural History, 1889-1894.
- Nathan C. Grover, B. C. E., Assistant in Civil Engineering, 1890-1894; Assistant Professor, 1894-1897; Associate Professor, 1897-1898; Professor of Civil Engineering, 1898-1903.

- Harriet Converse Fernald, M. S., Librarian, 1890-1897.
- Welton M. Munson, M. S., Ph.D., Professor of Horticulture and Landscape Gardening and Horticulturist to the Experiment Station, 1891-1893; Professor of Horticulture and Horticulturist of the Experiment Station, 1893-1906; Pomologist in the Experiment Station, 1906-1907.
- Horace M. Estabrooke, M. S., M. A., Professor of Rhetoric and Modern Languages, 1891-1895; Professor of English, 1895-1908.
- James S. Stevens, M. S., LL.D., Professor of Physics, 1891—
- David W. Colby, B. S., Assistant in Chemistry, 1891-1894; Instructor in Chemistry, 1894-1897.
- Mark L. Hersey, 2d Lieut., 9th Infantry, U. S. A., Professor of Military Science and Tactics, 1891-1895.
- Leo B. Plummer, Assistant in Horticulture in Experiment Station, 1891.
- David W. Trine, B. S., Assistant in Horticulture, 1892-1894.
- Harris P. Gould, B. S., Assistant in Horticulture in Experiment Station, 1892-1896.
- Ernest P. Chapin, M. E., Instructor in Electrical Engineering, 1894-1895.
- George Parker Cowan, B. C. E., Tutor in Civil Engineering, 1894-1895.
- Albert Joseph Durgin, Assistant in Woodwork, 1894-1896.
- George Harry Hall, B. M. E., Meteorological Observer in the Experiment Station, 1894-1895.
- Elizabeth Abbott Balentine, Secretary to the President, 1894-1896; Secretary to the President and Secretary of the Faculty, 1896-1906; Secretary of the Faculty, 1906-1911; Secretary of the University, 1911-1912; Registrar, 1912-13.
- Fred Charles Moulton, M. S., Chemist in the Experiment Station, 1895-1896.
- Elmore David Cummings, C. E., Instructor in Civil Engineering, 1895-1896.
- Wilbur Fisk Jackman, B. S., Ph. C., Instructor in Pharmacy, 1895-1897; Assistant Professor of Pharmacy, 1897-1901; Professor of Pharmacy, 1901-1913.
- Burton Smith Lanphear, B. S., Instructor in Electrical Engineering, 1895-1898.

- Edward Bryant Nichols, B. A., Instructor in Modern Languages, 1895-1898; Assistant Professor of Modern Languages, 1898-1900.
- Winfield Scott Edgerly, Captain 7th Cavalry, U. S. A., Professor of Military Science, 1895-1896.
- Wendell Wyze Chase, B. C. E., Tutor in Drawing, 1895-1896.
- Frank Damon, B. S., Tutor in Physics, 1895-1896.
- Halbert Gardiner Robinson, B. C. E., Tutor in Mathematics, 1895-1897.
- Ora Willis Knight, B. S., Assistant in Natural Science, 1895-1897; Assistant Chemist in the Experiment Station, 1897-1902.
- Charles Dayton Woods, B. S., Sc. D., Professor of Agriculture and Director of the Experiment Station, 1896-1903; Director of the Experiment Station and Professor of Agricultural Chemistry, 1903-1904; Director of the Experiment Station, 1904—.
- Herbert Nathan Royden, 2d Lieut., 23d Infantry, U. S. A., Professor of Military Science, 1896-1898.
- Guy Ashton Andrews, B. A., Instructor in German and Latin, 1896.
- Irving Wetherbee Fay, B. A., Ph. D., Instructor in Biological Chemistry and Chemist in the Experiment Station, 1896.
- Harold Sherburne Boardman, C. E., Tutor in Mathematics, 1896-1897; Tutor in Drawing, 1897-1899; Instructor in Civil Engineering, 1901-1903; Associate Professor, 1903-1904; Professor of Civil Engineering, 1904—.
- Perley Walker, M. M. E., Tutor in Shop-work and Mathematics, 1896-1897; Instructor in Mechanical Engineering, 1897-1900; Professor of Mechanical Engineering, 1902-1905.
- Charles Partridge Weston, C. E., M. A., Tutor in Physics, 1896-1898; Instructor in Civil Engineering, 1898-1901; Assistant Professor of Mechanics and Drawing, 1904-1907; Professor of Mechanics and Drawing, 1907—.
- Harvey Waterman Thayer, B. A., Tutor in French and English, 1896-1898.
- Lucius Jerry Shepard, B. S., Assistant Horticulturist in the Experiment Station, 1896-1901; Assistant Agriculturist in the Experiment Station, 1901-1902.

- Henry Bennett Slade, B. A., Assistant Chemist in the Experiment Station, 1896-1897.
- Charles Walradt Mudge, B. S., Assistant Chemist in the Experiment Station, 1897.
- Wallace Stedman Elden, M. A., Instructor in Latin and French, 1897-1898; Assistant Professor of Latin and French, 1898-1899.
- Reginald Rusden Goodell, M. A., Instructor in Modern Languages, 1897-1901.
- Gellert Alleman, Ph. D., Instructor in Chemistry, 1897-1898.
- Ralph Kneeland Jones, B. S., Librarian, 1897—.
- Richard Mills Andrews, B. A., Tutor in Mathematics, 1897-1898.
- Stanley John Steward, B. M. E., Tutor in Shop-work, 1897-1898; Foreman of the Shop, 1898-1902; Instructor in Shop-work 1902-1903; Instructor in Mechanical Engineering, 1903-1904.
- William Thomas Brastow, B. C. E., Assistant in Physics, 1897-1898.
- Andrew Jarvis Patten, B. S., Assistant Chemist in the Experiment Station, 1897-1899.
- Allen Rogers, B. S., Assistant in Chemistry, 1897-1900.
- Edwin Carleton Upton, B. S., Assistant in English, 1897-1898; Assistant in Modern Languages, 1899-1900; Tutor in English and Modern Languages, 1900-1901.
- Stanwood Hill Cosmey, B. C. E., Assistant in Civil Engineering, 1897-1898.
- Perley Francis Goodridge, B. M. E., Assistant in Mechanical Engineering, 1897-1898.
- George Enos Gardner, M. A., Professor of Law, and Dean of the Law School, 1898-1902.
- Lucilius Alonzo Emery, M. A., LL. D., Lecturer on Roman Law, 1898-1902; Lecturer on Roman Law and Probate Law, 1902—.
- Charles Hamlin, M. A., LL. D., Lecturer on Insolvency, 1898-1902; Lecturer on Bankruptcy and Federal Procedure, 1902-1911.
- Andrew Peters Wiswell, LL. D., Lecturer on Evidence, 1898-1906.

- Louis Carver Southard, M. S., LL. D., Lecturer on Medico-Legal Relations, 1898-1899; Lecturer on Medical Jurisprudence, 1899-1902; Lecturer on Medico-Legal Relations, 1902—.
- Forest John Martin, LL. B., Lecturer on Pleading and Maine Practice, 1898-1899; Lecturer on Maine Practice, 1899-1901; Instructor in Law, 1901-1902; Resident Lecturer on Common Law Pleading and Maine Practice, 1902-1912.
- Hugo Clark, C. E., Lecturer on Equity Pleading, 1898-1901; Instructor in Law, 1901-1902; Resident Lecturer on Equity Pleading and Practice, 1902-1908.
- Leonard Perley Dickinson, B. S., Instructor in Electrical Engineering, 1898-1899.
- Garnett Ryland, Ph. D., Instructor in Chemistry, 1898-1899; Assistant Professor of Chemistry, 1899-1901.
- Robert Harper Murray, B. A., LL. M., Instructor in Law, 1898-1899.
- Arthur Robert Crathorne, B. S., Tutor in Mathematics, 1898-1900.
- Herbert Grove Dorsey, M. S., Tutor in Physics, 1898-1900.
- Ralph Hamlin, B. C. E., Assistant in Civil Engineering, 1898-1899.
- Ray Herbert Manson, B. M. E., Assistant in Electrical Engineering, 1898-1899.
- Elmer Drew Merrill, B. S., Assistant in Natural History, 1898-1899.
- Arthur Wellington Price, B. A., Assistant in English, 1898-1900; Instructor in Law, 1900-1901.
- Leon Edwin Ryther, B. S., Assistant in Physics, 1898-1899.
- Horace Loring White, B. S., Assistant Chemist in the Experiment Station, 1898-1899.
- Karl Pomeroy Harrington, M. A., Professor of Latin, 1899-1905.
- John Homer Huddilston, Ph. D., Professor of Greek, 1899-1912; Professor of Greek and Classical Archaeology, 1912—.
- William Emanuel Walz, M. A., LL. B., Instructor in Law, 1899-1900; Professor of Law, 1900—.
- Harold Hayward Clark, B. M. E., Tutor in Drawing, 1899-1900.

- Cyrenius Walter Crockett, B. S., Assistant in Chemistry, 1899-1900.
- Archer Lewis Grover, B. M. E., Assistant in Electrical Engineering, 1899-1900; Physical Director, 1901-1902; Physical Director and Instructor in Drawing, 1902-1904; Instructor in Drawing, 1904-1906; Instructor in Civil Engineering and Drawing, 1906-1909; Assistant Professor of Drawing, 1909-1912; Associate Professor of Drawing, 1912—.
- Edward Raymond Mansfield, B. S., Assistant Chemist in the Experiment Station, 1899-1903.
- Stanley Sidensparker, B. M. E., Assistant in Physics, 1899-1900.
- Clinton Leander Small, B. S., Assistant in Chemistry, 1899-1900.
- William Augustine Murray, B. C. E., Assistant in Civil Engineering, 1899-1900.
- Oliver Otis Stover, B. S., Assistant in Natural History, 1899-1900.
- Gilman Arthur Drew, Ph. D., Professor of Biology and Zoologist of the Experiment Station, 1900-1903; Professor of Biology, 1903-1911; Director of the Museum, 1907-1911.
- Orlando Faulkland Lewis, Ph. D., Assistant Professor of Modern Languages, 1900-1901; Professor of Modern Languages, 1901-1903; Professor of Germanic Languages, 1903-1905.
- Fred Hale Vose, B. M. E., Tutor in Mechanical Engineering, 1900-1901; Instructor in Mechanical Engineering, 1901-1902.
- Louis Siff, B. S., Tutor in Mathematics, 1900-1902.
- Roscoe Milliken Packard, M. A., Tutor in Mathematics, 1900-1902.
- William Porter Beck, B. S., Tutor in Physics, 1900-1901.
- Clinton Llewellyn Cole, B. C. E., Tutor in Drawing, 1900-1902.
- Alden Bradford Owen, B. M. E., Tutor in Electrical Engineering, 1900-1901.
- Charles Hutchinson Lombard, B. C. E., Assistant in Civil Engineering, 1900-1901.

Frank Henry Mitchell, B. S., Assistant in Chemistry, 1900-1901; Tutor in Chemistry, 1901-1902; Instructor in Chemistry, 1902-1903.

James Arthur Hayes, B. S., Assistant in Chemistry, 1900-1901.

Clifford Dyer Holley, B. S., Assistant Chemist in the Experiment Station, 1900-1902.

Wilfred Harold Caswell, B. M. E., Assistant in Physics, 1900-1901.

Philip Ross Goodwin, B. C. E., Assistant in Civil Engineering, 1900-1901.

Percy Leroy Ricker, B. S., Assistant in Biology, 1900-1901.

Perley Spaulding, B. S., Assistant in Horticulture in the Experiment Station, 1900-1901.

Benjamin Piatt Runkle, L. H. D., Brevet Major General, U. S. A., Professor of Military Science, 1901-1902.

William Robinson Pattangall, M. S., Instructor in Law, 1901-1902.

Edgar Myrick Simpson, B. A., Instructor in Law, 1901-1902; Instructor in Real Property and Corporations, 1902-1904; Assistant Professor of Law, 1904-1912; Professor of Law, 1912—.

Gilbert Hillhouse Boggs, Ph. D., Instructor in Chemistry, 1901-1903.

Guy Andrew Thompson, M. A., Instructor in English and Modern Languages, 1901-1902; Instructor in English, 1902-1905; Assistant Professor of English, 1905-1909; Professor of English Literature, 1909—.

Philip Warner Harry, B. A., Instructor in Modern Languages, 1901-1902.

John Emerson Burbank, M. A., Tutor in Physics, 1901-1902; Instructor in Physics, 1902-1904.

George Harold Davis, B. S., Tutor in Electrical Engineering, 1901-1902.

George Edward Poucher, B. S., Assistant in Physics, 1901-1902.

Lewis Robinson Cary, B. S., Assistant in Biology, 1901-1902; Tutor in Biology, 1902-1903.

Horace William Britcher, B. C. E., Assistant Zoologist in the Experiment Station, 1901-1902.

- Marshall Baxter Cummings, B. S., Assistant in Horticulture and Botany, 1901-1903; Instructor in Botany, 1903-1907; Assistant Horticulturist in the Experiment Station, 1902-1907.
- George Emory Fellows, Ph. D., L. H. D., LL. D., Professor of History, 1902-1910.
- Edouard Paul Baillot, B. Sc., L. H. D., Professor of French (Summer term), 1902.
- George Depue Hadzsits, Ph. D., Assistant Professor of Greek, (First Term) 1902-1903.
- Amos H. Martin, Capt. 19th Infantry, U. S. A., Professor of Military Science, 1902-1903.
- Caroline Colvin, Ph. D., Instructor in History, 1902-1903; Assistant Professor of History, 1903-1906; Professor of History, 1906—.
- Alfred Yartan Dubuque, B. A., Instructor in Romance Languages, 1902-1903.
- Walter Mauney Eby, B. A., Instructor in English, 1902-1903.
- Walter Rautenstrauch, B. S., Instructor in Mechanical Engineering, 1902-1903.
- Eugene Clement Donworth, LL. B., Instructor in Contracts, 1902-1904.
- Bertram Leigh Fletcher, LL. B., Instructor in Agency, 1902-1908.
- George Henry Worster, LL. M., Instructor in Damages, 1902-1903; Instructor in Insurance, 1903-1908; Instructor in Sales and Private Corporations, 1908-1912; Associate Professor of Law, 1912—.
- Charles Vey Holman, LL. B., Lecturer on Mining Law, 1902-1905.
- Thomas Buck, B. S., Tutor in Mathematics, 1902-1903; Instructor in Mathematics, 1903-1906.
- Henry Ernest Cole, B. S., Tutor in Electrical Engineering, 1902-1903.
- Walter Davis Lambert, M. A., Tutor in Mathematics, 1902-1903; Instructor in Mathematics, 1903-1904.
- Walter Alfred Mitchell, B. A., Tutor in Physics, 1902-1903.
- Henry Martin Shute, M. A., Tutor in Modern Languages, 1902-1903; Instructor in Modern Languages, 1903-1906; Instructor in Romance Languages, 1906-1907.

- Clifford Clayton Alexander, Tutor in Drawing, 1902-1903.
Horace Parlin Hamlin, B. S., Assistant in Civil Engineering, 1902-1903; Instructor in Civil Engineering, 1903-1906.
Herman Herbert Hanson, B. S., Assistant Chemist in the Experiment Station, 1902-1908; Associate Chemist in the Experiment Station, 1908—.
Everett Willard Davee, Assistant in Shop-work, 1902-1904; Instructor in Wood and Iron Work, 1905—.
Charles J. Symmonds, Captain 12th Cavalry, U. S. A., Professor of Military Science, 1903-1906; Physical Director, 1904-1905.
Samuel Newton Spring, M. F., Professor of Forestry, 1903-1905.
Ernest Gustavus Lorenzen, Ph. B., LL. B., J. U. D., Professor of Law, 1903-1904.
William Daniel Hurd, B. S., M. Agr., Professor of Agriculture, 1903-1905; Professor of Agronomy, 1905-1909.
Jacob Bernard Segall, Ph. D., Professor of Romance Languages, 1903—.
Grant Train Davis, B. A., Instructor in Chemistry, 1903-1906.
John Byron Reed, B. A., Instructor in Chemistry, 1903-1905.
Arthur Williams Cole, B. S., Instructor in Shop-work, 1903-1906.
Newell Walter Edson, B. A., Instructor in English, 1903-1905.
Victor Manuel Arana, M. E. in E. E., Instructor in Electrical Engineering, 1903-1904.
Arthur Crawford Jewett, B. S., Instructor in Mechanical Engineering, 1903-1905; Associate Professor of Mechanical Engineering, 1905-1906; Professor of Mechanical Engineering, 1906-1915.
Ralph Melvin Conner, B. S., Tutor in Mathematics, 1903-1904.
Everett Harlow Bowen, M. S., LL. M., Tutor in Physics, 1903-1905; Instructor in Common Law and Pleading, 1912-1913.
Paul Dyer Simpson, B. S., Tutor in Civil Engineering, 1903-1904.
Henry Melville Soper, B. S., Assistant in Chemistry, 1903-1904.

- Edith Marion Patch, M. S., Ph. D., Assistant in Entomology in the Experiment Station, 1903-1904; Entomologist in the Experiment Station, 1904-1910; Associate Entomologist in the Experiment Station, 1910-1913; Entomologist in the Experiment Station, 1913—.
- Sanford Crosby Dinsmore, B. S., Assistant Chemist in the Experiment Station, 1903-1905.
- Leon Elmer Woodman, M. A., Ph. D., Instructor in Physics, 1904-1905; Assistant Professor of Physics, 1908-1912; Associate Professor of Physics, 1912—.
- Harley Richard Willard, M. A., Ph. D., Instructor in Mathematics, 1904-1907; Assistant Professor of Mathematics, 1907-1914; Associate Professor of Mathematics, 1914—.
- Walter Kierstead Ganong, B. Sc., Instructor in Electrical Engineering, 1904-1905; Acting Professor, 1905-1906; Professor of Electrical Engineering, 1906-1912.
- Bartlett Brooks, B. A., LL. B., Instructor in Contracts, 1904-1908; Instructor in Contracts and Negotiable Paper, 1908-1912; Assistant Professor of Law, 1912—.
- Raymond Kurtz Morley, M. A., Tutor in Mathematics, 1904-1905; Instructor in Mathematics, 1905-1907.
- Leroy Clifton Smith, B. S., Assistant in Chemistry, 1904-1905.
- Stephen J. Farrell, Assistant in Physical Training, 1904-1909.
- Percy Anderson Campbell, M. S. A., Assistant in Animal Industry, 1905; Instructor in Animal Industry, 1906-1907; Professor of Animal Industry, 1907-1913.
- Harry Ansel Sawyer, Assistant Chemist in the Experiment Station, 1905.
- George Davis Chase, Ph. D., Professor of Latin, 1905—.
- Gordon Edwin Tower, B. S., M. F., Professor of Forestry, 1905-1910.
- Max Carl Guenther Lentz, Acting Professor of Germanic Languages, 1905-1907.
- Eugene Louis Raiche, Instructor in French, (Summer Term) 1905, 1906, 1909-1911, 1914.
- James Perry Worden, Ph. D., Instructor in German, (Summer Term) 1905.
- Arthur Guy Terry, Ph. M., Instructor in History, (Summer Term) 1905.

- Arthur Witter Gilbert, M. S., Instructor in Agronomy, 1905-1906; Assistant Professor of Agronomy, 1906-1907.
- Matthew Hume Bedford, Ph. D., Instructor in Chemistry, 1905-1907.
- Howard Doty Carpenter, M. A., Instructor in Electrical Engineering, 1905-1906.
- Thomas McCheyne Gunn, B. S., M. A., Instructor in Mechanical Engineering, 1905-1907.
- Walter Everett Prince, M. A., Instructor in English, 1905-1912.
- William Ross Ham, B. A., Instructor in Physics, 1905-1907.
- Ira Mellen Bearce, B. S., Tutor in Physics, 1905-1906.
- Laurence Theodore Ernst, Assistant in Horticulture, 1905-1906.
- Bessie Geraldine Leeds, B. A., Assistant in Experiment Station, 1905-1906.
- Ralph Lowe Seabury, B. S., Assistant in Chemistry, 1905-1906; Instructor in Biological and Agricultural Chemistry, 1906-1907.
- Florence Balentine, B. S., Assistant in Biology, 1905-1906; Tutor in Biology, 1906-1907.
- Lewis Irving Nurenberg, B. S., Assistant Chemist in the Experiment Station, 1905-1906.
- Adelbert Wells Sprague, B. S., Assistant in English, 1905-1906.
- Charles Davidson, Ph. D., Professor of Education, 1906-1911.
- Joseph William Carr, Ph. D., Professor of Germanic Languages, 1906-1909.
- Warner Jackson Morse, M. S., Ph. D., Plant Pathologist in the Experiment Station, 1906—.
- Robert James Sprague, Ph. D., Professor of Economics and Sociology, 1906-1912.
- Walter Stevens Brown, First Lieut. 10th Infantry, U. S. A., Professor of Military Science and Tactics, 1906-1909.
- George Rufus Wheeler, M. A., Acting Assistant Professor of English, 1906-1908.
- William Morton Barrows, M. S., Instructor in History, (Summer Term) 1906.
- Percy Loring Reynolds, M. D., Physical Director and University Physician, 1906-1908.

- Charles Barto Brown, C. E., Instructor in Civil Engineering, 1906-1907; Assistant Professor of Civil Engineering, 1907-1908; Professor of Railroad Engineering, 1908—.
- Elmer Earl Moots, B. C. E., Instructor in Mathematics, 1906-1909.
- Windsor Pratt Daggett, Ph. B., Instructor in Public Speaking, 1906-1908; Assistant Professor of Public Speaking, 1908-1909; Professor of Public Speaking, 1909—.
- Harry Alvah Emery, B. S., Instructor in Civil Engineering, 1906-1907.
- Maxwell Jay Dorsey, B. S., Instructor in Horticulture, 1906-1907.
- Charles Jenkins Carter, Instructor in the Machine Shop, 1906-1911; Instructor in Machine Tool Work, 1911—.
- Gustav Frederick Wittig, B. S., E. E., Instructor in Electrical Engineering, 1906-1908; Assistant Professor of Electrical Engineering, 1908-1909.
- Arthur Craig Whittier, B. S., Assistant Chemist in the Experiment Station, 1906-1908.
- Joanna Carver Colcord, B. S., Assistant Chemist in the Experiment Station, 1906-1909.
- Henry Walter Bearce, B. S., Tutor in Physics, 1906-1907; Instructor in Physics, 1907-1908.
- Dayton James Edwards, B. S., Assistant in Biology, 1906-1908.
- Royden Lindsay Hammond, Seed Analyst and Photographer in the Experiment Station, 1906—.
- Andrew Paul Raggio, Ph. D., Instructor in Modern Languages, 1907; Assistant Professor of Romance Languages, 1907-1911; Associate Professor, 1911-1915; Professor of Spanish and Italian, 1915—.
- Raymond Pearl, Ph. D., Biologist in the Experiment Station, 1907—.
- Frank Macy Surface, Ph. D., Associate Biologist in the Experiment Station, 1907-1911; Biologist of the Experiment Station, 1913—.
- Mintin Asbury Chrysler, Ph. D., Associate Professor of Botany, 1907-1910; Professor of Biology, 1910—.
- Herman Beckenstrater, M. S., Assistant Professor of Horticulture, 1907-1908.

- James Earl McClintock, B. S., In charge of Agricultural Extension Work, 1907-1909; Assistant Professor of Agronomy, 1908-1909.
- Walter Molbray Curtis, B. S., Assistant Professor of Mechanical Engineering, 1907-1911.
- Earnest David Waid, B. Sc., Assistant Professor of Agronomy, 1907-1909.
- Lincoln Ware Riddle, Ph. D., Instructor in Botany, (Summer Term) 1907.
- Frank Fletcher Stephens, Ph. D., Instructor in History, (Summer Term) 1907.
- Laurie Lorenzo Burgess, M. S., Instructor in Chemistry, (Summer Term) 1907-1909.
- Paul Leonard Bean, B. S., Instructor in Civil Engineering, 1907-1909; Assistant Professor of Civil Engineering, 1909-1912; Associate Professor of Civil Engineering, 1912-1915.
- Robert Edmund Clayton, B. S., Instructor in Chemistry, 1907-1909.
- Gladys Ethel Fellows, B. A., Instructor in Romance Languages, 1907-1909.
- Leslie Ingalls Johnstone, B. S., Instructor in Civil Engineering, 1907-1910.
- James Seymour, Ph. G., B. S., Instructor in Chemistry, 1907-1909.
- Henry Lewis Sweet, B. A., Instructor in Mathematics, 1907-1909.
- Willis Flye Washburn, B. S., Instructor in Chemistry, 1907-1910.
- Charles Sylvester Ridgway, B. S., Instructor in Botany, 1907-1908.
- Lowell Jacob Reed, B. S., Instructor in Mathematics and Physics, 1907-1908; Instructor in Mathematics, 1908-1915; Assistant Professor of Mathematics, 1915—.
- George Edward Pearson, M. A., Instructor in English, 1907-1909; Instructor in English and Economics, 1909-1910.
- Arthur Russell Lord, B. S., Tutor in Civil Engineering, 1907-1908.
- Carleton Chase Murdock, B. A., Tutor in Physics, 1907-1908.
- Charles Henry Sampson, B. S., Tutor in Drawing, 1907-1908.

- Wallace Craig, Ph. D., Professor of Philosophy, 1908—.
- Charles Edward Lewis, Ph. D., Associate Plant Pathologist in the Experiment Station, 1908-1913.
- Victor Ray Gardner, M. S. A., Assistant Professor of Horticulture, 1908-1910; Professor of Horticulture, 1910-1911; Acting Head of the College of Agriculture, 1909-1911.
- William Archibald Brown, B. S. A., Assistant Professor of Animal Industry, 1908-1911.
- Arthur Sumner Eames, B. A., Instructor in Botany, (Summer Term) 1908.
- Harry Newton Conser, M. S., M. A., Instructor in Botany, 1908-1912; Assistant Professor of Botany, 1912—.
- Maynie Rose Curtis, M. A., Ph. D., Assistant Biologist in the Experiment Station, 1908—.
- Edith Maynard Wallace, M. A., Instructor in Biology, 1908-1909.
- John Francis Mahan, Physical Director, 1908-1909.
- James Pitt Farnsworth, B. S., Tutor in Drawing, 1908-1909.
- Robert Kent Steward, B. S., Tutor in Civil Engineering, 1908-1909.
- Joseph Lewis Coon, Ph. B., Tutor in Physics, 1908-1909.
- Edward Allen Garlock, B. S., Tutor in Physics, 1908-1909.
- Anne Margaret Merrill, B. A., Fellow in German, 1908-1909.
- Payson Smith, LL. D., Lecturer on Superintendence, 1908-1909.
- Kenneth Charles Morton Sills, A. M., Lecturer on Roman Literature, 1908-1909.
- Albert Guy Durgin, M. S., Assistant in Chemistry, 1908-1909; Assistant Chemist in the Experiment Station, 1909-1912; Instructor in Chemistry, 1912-1914; Assistant Professor of Chemistry, 1914—.
- Charles Preston Weaver, M. A., Assistant Professor of English, 1908-1911.
- Roland Palmer Gray, M. A., Professor of English, 1909—.
- Ralph Harper McKee, Ph. D., Professor of Chemistry, 1909—.
- Garrett William Thompson, Ph. D., Professor of German, 1909—.
- Myron Tracy Scudder, M. A., Professor of Education, (Summer Term) 1909.

- Edward Stone Hawes, M. A., Professor of English, (Summer Term) 1909.
- Charles Albert Varnum, Lieutenant Colonel, U. S. A., Professor of Military Science and Tactics, 1909-1912.
- Charles Wilson Easley, Ph. D., Associate Professor of Chemistry, 1909—.
- Oskar Augustus Johannsen, Ph. D., Associate Entomologist in the Experiment Station, 1909-1910; Entomologist in the Experiment Station, 1910-1913.
- Walter Weidenfeld Bonns, B. S., Associate Horticulturist in the Experiment Station, 1909-1912.
- Laura Comstock, Assistant Professor of Domestic Science, 1909-1912; Associate Professor of Home Economics, 1912-1913.
- Charles Hoeing, Ph. D., Assistant Professor of Latin, (Summer Term) 1909.
- Melvin Ernest Sherwin, M. S., Assistant Professor of Agronomy, 1909-1910.
- George Edward Simmons, M. S., Assistant Professor of Agronomy, 1909-1910; Assistant Professor of Agricultural Engineering and Farm Management, 1910-1911; Professor of Agronomy, 1911—.
- Joseph Farrington Merrill, B. S., Assistant Chemist in the Experiment Station, 1909-1910.
- Walter Elwood Farnham, Instructor in Drawing, 1909—.
- Robert Rutherford Drummond, Ph. D., Instructor in German, 1909-1913; Assistant Professor of German, 1913-1915; Associate Professor, 1915—.
- Bertrand French Brann, B. S., Instructor in Chemistry, 1909-1911.
- George Alvin Scott, B. S. in E. E., Instructor in Physics, 1909-1910.
- Benjamin Engle Kraybill, Ph. B., Instructor in Industrial Chemistry, 1909-1910.
- James Renfrew Dice, B. S., Instructor in Animal Industry, 1909-1911.
- Wintha Rudolph Palmer, B. S., Instructor in Horticulture, 1909-1912.
- Sherman Daniel Chambers, B. S., Instructor in Mathematics, 1909-1913.

- Truman Leigh Hamlin, M. A., Instructor in Mathematics, 1909-1910; Assistant Professor of Mathematics, 1910—.
- Walter Edmund Wilbur, M. S., Instructor in Mathematics, 1909—.
- Ernest Conant Cheswell, Instructor in Engineering Laboratory Practice, 1909-1911; Instructor in Electrical Engineering, 1911—.
- Alfred Blanchard Kershaw, A. M., Instructor in English, (Summer Term) 1909.
- Albert Theodore Childs, B. S., E. E., Instructor in Electrical Engineering, 1909-1911; Assistant Professor, 1911-1912; Associate Professor of Electrical Engineering, 1912—.
- Alice Middleton Boring, Ph. D., Instructor in Zoology, 1909-1911; Assistant Professor of Zoology, 1911-1913; Associate Professor of Zoology, 1913—.
- Warren Edward Connor, B. S., Tutor in Civil Engineering, 1909-1910.
- Norman Haskell Mayo, B. S., Tutor in Civil Engineering, 1909-1910.
- Ernest Claude Drew, B. S., Tutor in Physics, 1909-1910; Instructor in Physics, 1910-1913.
- Edward Harward Blake, LL. B., LL. D., Lecturer on Admiralty, 1909—.
- Henry Gough Bell, B. S. A., Professor of Agronomy and Farm Manager, 1909-1911.
- John Manvers Briscoe, M. F., Professor of Forestry, 1910—.
- Leon Stephen Merrill, M. D., Director of Agricultural Extension Work, 1910—.
- Edgar Ramey Wingard, M. S., Director of Physical Culture and Athletics, 1910-1911; Professor of Physical Culture and Director of Athletics, 1911—.
- Leon Edwin Bell, A. M., S. T. B., Professor of Education, (Summer Term) 1910.
- Raymond Garfield Gettell, M. A., Professor of History, (Summer Term) 1910.
- Hélène Julie Raiche, Instructor in French, (Summer Term) 1910-1911, 1914.
- Lloyd Meeks Burghart, B. A., Instructor in Chemistry, 1910-1912; Assistant Professor of Chemistry, 1912—.

- Victor Allan Ketcham, B. A., LL. B., Instructor in English, 1910-1913.
- Julius Ernest Kauffuss, B. S., Instructor in Civil Engineering, 1910-1912; Assistant Professor, 1912-1914; Associate Professor of Civil Engineering, 1914—.
- Harold Merton Royal, B. S., Instructor in Physics, 1910-1911.
- Alvin Kimball Burke, B. S., Assistant Chemist in the Experiment Station, 1910-1912.
- Raymond Pratt Norton, B. S., Assistant Chemist in the Experiment Station, 1910-1911.
- Arthur Moses Buswell, B. A., Instructor in Industrial Chemistry, 1910-1912.
- Henry Herbert Jordan, B. S., Tutor in Civil Engineering, 1910-1911.
- John Neal Philbrook, B. S., Tutor in Civil Engineering, 1910-1911.
- Isaac Watson Dyer, B. A., Lecturer on Federal Jurisdiction and Procedure, and on Private Corporations, 1910—.
- Herbert Milton Heath, M. A., Lecturer on Cross-Examinations, 1910-1912.
- John Coulter Hockenberry, Ph. D., Professor of Education, (Summer Term) 1911.
- Arthur Julius Jones, Ph. D., Professor of Education, 1911-1915.
- George Ware Stephens, Ph. D., Acting Professor of Economics and Sociology, 1911-1912; Professor of Economics and Sociology, 1912—.
- Eugene Peter Humbert, Ph. D., Associate Biologist in the Experiment Station, 1911-1912.
- Edson Forbes Hitchings, C. E., M. S., Associate Professor of Horticulture, 1911—.
- William Leroy Slate, Jr., B. S. in Agr., Associate Professor of Agronomy, 1911-1913.
- Winslow Hobart Herschel, B. A., Assistant Professor of Mechanical Engineering, 1911-1912; Associate Professor of Mechanical Engineering, 1912-1913.
- William Freeman Schoppe, B. S., Assistant Professor of Animal Industry, 1911-1913.

- Ralph Woodbury Redman, B. S., Instructor in Animal Industry, 1911-1912; Assistant Professor of Animal Industry, 1912-1913; Assistant Director of Agricultural Extension Service, 1913—.
- Cornelia Palmer, Instructor in Domestic Science, 1911-1912; Instructor in Home Economics, 1912-1913; Assistant Professor of Home Economics, 1913-1914.
- Raymond Brown Kittredge, B. S., Instructor in Civil Engineering, 1911-1912.
- Earle Ovando Whittier, B. S., Instructor in Chemistry, 1911-1915.
- Clayton Ulrey, A. B., Instructor in Physics, 1911-1913.
- George Martin Weimar, A. M., Instructor in English, (Summer Term) 1911.
- Thomas Goddard Wright, M. A., Instructor in English, (Summer Term) 1911.
- Walter Lethby Leighton, Ph. D., Instructor in English, 1911-1912.
- Howard Madison Parshley, A. M., Instructor in Zoology, 1911-1914.
- William Kisler Huff, B. A., Instructor in English, 1911-1912.
- Carl Henry Lekberg, B. S., Instructor in Mechanical Engineering, 1911-1913; Assistant Professor of Mechanical Engineering, 1913-1915; Associate Professor of Mechanical Engineering, 1915—.
- Edward Arthur Stanford, B. S., Itinerant Instructor in Farm Management, 1911-1913.
- Allen Holt Blaisdell, B. S., Tutor in Mechanical Engineering, 1911-1912.
- Emile Sam Samra, B. és L., Tutor in German, 1911-1912; Instructor in German, 1912-1913.
- Maxwell Aley, A. B., Instructor in English, 1912.
- William Edward Barrows, Jr., E. E., Professor of Electrical Engineering, 1912—.
- Ralph Rigby Glass, First Lieut. 21st Infantry, U. S. A., Professor of Military Science and Practice, 1912-1914.
- Arthur Adams, Ph. D., Professor of English, (Summer Term) 1912.
- Webster Newton Jones, M. A., Instructor in Industrial Chemistry, 1912-1913.

- Victor George Aubry, B. S., Instructor in Animal Industry, 1912-1914; Assistant Professor of Animal Industry, 1914-1915.
- Harry Woodbury Smith, B. S., Instructor in Agriculture, 1912-1913; Instructor in Bacteriology, 1913-1915; Assistant Professor of Bacteriology, 1915—.
- Albert Verrill, B. S., Assistant Chemist in the Experiment Station, 1912-1913.
- Clarence Wallace Barber, B. S., Assistant Biologist in the Experiment Station, 1912-1914; Director of Farm Demonstration Work, Cumberland County, 1914—.
- Edward Eugene Sawyer, B. S., Assistant Chemist in the Experiment Station, 1912—.
- Helen Willard Averill, B. S., Assistant Chemist in the Experiment Station, 1912-1913.
- Alpheus Crosby Lyon, B. S., Instructor in Civil Engineering, 1912-1914; Assistant Professor of Civil Engineering, 1914—.
- William Hinds Darrow, M. A., Instructor in Horticulture, 1912-1913.
- Charles Anson Nash, B. S., Instructor in Electrical Engineering, 1912-1913.
- Henry Robbins Barrows, B. A., M. S., Instructor in English, 1912-1913; Instructor in Biology, 1913-1915.
- John Harry Parry, A. M., Instructor in English, 1912-1915.
- Leroy Franklin Bliss, B. A., Instructor in English, 1912-1915.
- Benjamin Calvin Kent, B. S., Tutor in Mechanical Engineering, 1912-1913.
- Helen Charlotte Worster, B. A., Assistant in English, 1912-1913.
- John Rogers Mason, A. M., LL. B., Lecturer in Bankruptcy Law, 1912—.
- Bliss S. Brown, M. S., Professor of Horticulture, 1913—.
- Lambert Seymour Corbett, M. S., Professor of Animal Industry, 1913—.
- William Ambrose Jarrett, Phar. D., Acting Professor of Pharmacy, 1913-1914; Associate Professor of Pharmacy, 1914—.
- John Rothwell Slater, Ph. D., Professor of English, (Summer Term) 1913.

- John Hedman, Ph. D., Professor of French, (Summer Term) 1913.
- Lawrence Boylston Chapman, B. Sc., Assistant Professor in Mechanical Engineering, 1913-1915.
- James McCluer Matthews, A. M., Assistant Professor of Economics and Sociology, 1913-1914; Associate Professor of Economics and Sociology, 1914—.
- Harold Scott Osler, B. S., Assistant Professor of Agronomy, 1913—.
- Elmer Robert Tobey, B. S., Assistant Chemist in the Experiment Station, 1913—.
- Michael Shapovalov, M. S., Assistant Pathologist in the Experiment Station, 1913—.
- Charles Brown Cleaves, B. S., Instructor in Drawing, 1913-1914.
- Raymond Harmon Ashley, Ph. D., Instructor in Chemistry, 1913-1914; Assistant Professor of Chemistry, 1914—.
- Herbert Soley Bain, B. A., Instructor in German, 1913—.
- Dorothea Beach, Instructor in Home Economics, 1913—.
- Eric Nichols Boland, M. S., Instructor in Animal Industry, 1913-1915.
- David Lee Clark, A. M., Instructor in English, 1913—.
- Carleton Whidden Eaton, A. B., M. F., Instructor in Forestry, 1913—.
- Ralph Maynard Holmes, A. M., Instructor in Physics, 1913-1915; Assistant Professor of Physics, 1915—.
- Orville Alvin Jamison, B. Sc. in Agr., Instructor in Animal Industry, 1913-1915.
- Earl Jones, M. S. in Agr., Instructor in Agronomy, 1913-1915.
- Walter Hines Nason, B. S., Instructor in Civil Engineering, 1913-1914.
- Martin Andrew Nordgaard, A. M., Instructor in Mathematics, 1913—.
- Robert Austin Pinkham, B. S., Instructor in Electrical Engineering, 1913-1914.
- Frank Prentice Rand, B. A., Instructor in English, 1913-1914.
- Lilian Nancy Randall, Instructor in Home Economics, 1913-1915.

- Charles Edward Roche, M. A., Instructor in Romance Languages, 1913-1914.
- Joseph Spear, B. A., Instructor in Mathematics and German, 1913-1914; Instructor in Mathematics, 1914-1915.
- Joseph Newell Stephenson, M. S., Instructor in Chemistry, 1913-1915; Assistant Professor of Chemistry, 1915—.
- Vincent Milo Transue, M. S., Instructor in Physics, 1913-1915.
- Robert Calvin Whitford, A. M., Instructor in English, 1913-1914.
- Elwood Whitney Jennison, B. S., Instructor in Mechanical Engineering, 1913—.
- Antoinette Treat Webb, A. B., Assistant in English, 1913-1915.
- Charles John Dunn, Lecturer on Maine Practice, 1913-1914.
- Henry Burt Montague, LL. M., Lecturer on Practice and History of Law, 1913—.
- Lawrence Vivian Jones, LL.B., Instructor in Forestry Law, 1913—.
- James Adrian Gannett, B. S., Registrar, 1913—.
- John Rice Miner, B. A., Computer in the Experiment Station, 1913—.
- George Albert Yeaton, Director of Farm Demonstrations, Oxford County, 1913—.
- Frank Harold Bickford, State Leader of Boys and Girls Agricultural Clubs, 1913-1914.
- Clarence Albert Day, Director of Farm Demonstrations, Washington County, 1913—.
- Arthur Lowell Deering, B. S., Director of Farm Demonstrations, Kennebec County, 1913—.
- Maurice Daniel Jones, B. S., Director of Farm Demonstrations, Penobscot County, 1913—.
- Ernest Monzer Straight, B. S. A., Director of Farm Demonstrations, Cumberland County, 1913-1914.
- Harold Perry Vannah, A. B., Assistant Chemist in the Experiment Station, 1914.
- Frank Sheldon Clark, B. S., First Lieut. U. S. Coast Artillery, Professor of Military Science and Tactics, 1914—.

- Frances Rowland Freeman, M. Sc., Associate Professor of Home Economics, 1914-1915; Professor of Home Economics, 1915.
- John Calvin Mellett, A. B., Associate Professor of English, 1914-1915.
- Daniel Wilson Pearce, A. B., Associate Professor of Education, 1914—.
- Marion Wilhelmina Borden, B. S., Instructor in Home Economics, 1914-1915.
- Jacob Zinn, Agr. D., Assistant Biologist in the Experiment Station, 1914—.
- Chester Earl Andrews, M. S., Instructor in Chemistry, 1914-1915.
- Timothy Jeremiah Connors, Jr., Pharm. D., Instructor in Pharmacy, 1914—.
- James John Donegan, Ph. B., Instructor in Civil Engineering, 1914—.
- Bert Emsley, A. B., Instructor in English, 1914-1915.
- Raymond Floyd, B. A., Instructor in German, 1914—.
- Norman Richards French, B. A., Instructor in Physics, 1914—.
- John Whittemore Gowen, B. S., Assistant Biologist in the Experiment Station, 1914-1915.
- William Gordon James, B. S., Instructor in Electrical Engineering, 1914—.
- Earl Everett Keyes, A. B., Instructor in English, 1914-1915.
- François Joseph Kueny, L. és L., Instructor in Romance Languages, 1914—.
- Arthur Whiting Leighton, Instructor in Drawing, 1914—.
- Arthur Bruton Leonard, M. E., Instructor in Mechanical Engineering, 1914.
- Hoyt Dennis Lucas, B. Sc., Assistant Chemist in the Experiment Station, 1914-1915.
- Alexander Lurie, B. S., Instructor in Horticulture, 1914—.
- Sidney Winfield Patterson, B. S., Instructor in Biological and Agricultural Chemistry, 1914—.
- Glen Blaine Ramsey, A. M., Instructor in Biology, 1914—.
- Neil Carpenter Sherwood, B. S., Instructor in Animal Industry, 1914—.

- Estelle Inez Beaupré, B. A., Assistant in Romance Languages, 1914-1915.
- Margaret June Kelley, B. A., Assistant in German, 1914—.
- Woodbury Freeman Pride, B. S., Assistant in Biology, 1914-1915.
- Roscoe Woods, A. B., Assistant in Mathematics, 1914-1915; Instructor in Mathematics, 1915—.
- Arthur Nelson Smith, Assistant in Physical Training, 1914—.
- Paul Wheeler Monohon, B. S., Assistant in Extension Work and Physical Training, 1914—.
- Harold E. Jenks, B. S., Instructor in Civil Engineering, 1914-1915.
- William Bridgham Peirce, B. M. E., Resident Lecturer on Maine Practice, 1914—.
- Harold Joseph Shaw, Director of Farm Demonstrations, Sagadahoc County, 1914—.
- Wilson Montgomery Morse, B. S., Director of Farm Demonstrations, Franklin County, 1914—.
- Harold Harlan Nash, Director of Farm Demonstrations, York County, 1914—.
- George Newton Worden, B. S., Director of Farm Demonstrations, Hancock County, 1914—.
- Ralph Pike Mitchell, In Charge of Boys Agricultural Club Work, 1914—.
- Marie Wilhelmina Gurdy, B. S., In Charge of Girls Agricultural Club Work, 1914—.
- William Collins Monahan, B. S., In Charge of Poultry Extension Work, 1914—.
- Auguste Ponleur, M. S., Instructor in Chemistry, 1915.
- Joseph Henry Bodwell, B. S., Extension Representative, Piscataquis County, 1915—.
- Ava Harriet Chadbourne, B. A., Assistant in Education, 1915—.
- James Everett Chapman, B. A., M. S., Extension Instructor in Soils, 1915—.
- Wilbert Amie Clemens, M. A., Ph. D., Instructor in Biology, 1915—.
- Henry Vigor Cranston, B. A., Assistant in Public Speaking and Secretary of the Christian Association, 1915—.

- Roland Legard Davis, B. S., Instructor in Civil Engineering, 1915—.
- Chester Hamlin Goldsmith, B. S., Instructor in Chemistry, 1915—.
- Helen Ann Knight, Ph. B., Instructor in Home Economics, 1915—.
- Frederick William Lane, B. S., Instructor in Chemistry, 1915—.
- Burnett Olcott McAnney, B. A., B. Lit., Assistant Professor of English, 1915—.
- Catherine Norton Platts, B. S., Extension Instructor in Home Economics, 1915—.
- Alton Willard Richardson, B. S., Instructor in Animal Husbandry, 1915—.
- Zrith Ransom Rideout, M. A., Instructor in English, 1915—.
- Walter Henry Rogers, B. S., Assistant Chemist in the Agricultural Experiment Station, 1915—.
- Myer Segal, M. A., Instructor in German, 1915—.
- Thomas William Sheehan, M. A., Instructor in English, 1915—.
- Stanley Ben Sink, Sc. B., Instructor in Agronomy, 1915—.
- Embert Hiram Sprague, B. S., Acting Associate Professor of Civil Engineering, 1915—.
- William Jordan Sweetser, B. S., Professor of Mechanical Engineering, 1915—.
- Hilda Estelle Vaughan, A. M., Instructor in English, 1915—.
- Frances Maria Whitcomb, B. S., Assistant Professor in Home Economics, 1915—.
- Albert Ames Whitmore, B. S., Instructor in History, 1915—.

In the foregoing list of "Professors and Instructors," four hundred and seventy-seven different names appear. Arranged in five-year groups in accordance with the terms of service, the following results are obtained:

Term of service from 1 to 5 years inclusive	380
Term of service from 6 to 10 years inclusive	53
Term of service from 11 to 15 years inclusive	20
Term of service from 16 to 20 years inclusive	14
Term of service from 21 to 25 years inclusive	3

Term of service from 26 to 30 years inclusive	5
Term of service from 31 to 35 years inclusive	1
Term of service from 36 to 40 years inclusive	1

The names of the persons included in the last four groups, or of those who have served the institution more than twenty years each, are herewith given: From 21 to 25 years, Professor George H. Hamlin, Professor Walter Flint, Dean James S. Stevens; from 26 to 30 years, Professor Allen E. Rogers, Dean James N. Hart, Dr. Fremont L. Russell, Professor James M. Bartlett, Professor Lucius H. Merrill; from 31 to 35 years, Professor Alfred B. Aubert; from 36 to 40 years, Ex-President Merritt C. Fernald.

STUDENTS

Four-Year Courses, Leading to the Bachelor's Degree

Class	Graduates	Non-Graduates	Total	Class	Graduates	Non-Graduates	Total
1872	6	12	18	1894	16	7	23
1873	7	8	15	1895	20	11	31
1874	6	11	17	1896	27	29	56
1875	19	13	32	1897	26	24	50
1876	36	11	47	1898	43	54	97
1877	17	21	38	1899	47	41	88
1878	13	22	35	1900	63	55	118
1879	22	21	43	1901	41	57	98
1880	15	21	36	1902	55	40	95
1881	24	23	47	1903	45	54	99
1882	22	14	36	1904	71	39	110
1883	14	14	28	1905	82	68	150
1884	14	20	34	1906	72	58	130
1885	15	10	25	1907	100	55	155
1886	16	7	23	1908	66	57	123
1887	19	15	34	1909	93	69	162
1888	23	16	39	1910	101	86	187
1889	16	15	31	1911	113	103	216
1890	37	9	46	1912	95	91	186
1891	23	20	43	1913	92	85	177
1892	18	15	33	1914	94	81	175
1893	17	20	37	1915	132	65	197

It thus appears that in the four-year courses, there have been 3460 students, of whom 1893 or 54.7% were graduated, receiving appropriate degrees, and 1567 or 45.3% are classed as non-graduates. These numbers bear the relation to each other of 6 to 5, or in other words, for every 6 graduates there have been 5 non-graduates.

COLLEGE OF LAW
Three-Year Course, Leading to the Degree of
Bachelor of Laws

Class	Graduates	Non-Graduates	Total	Class	Graduates	Non-Graduates	Total
1899	3	1	4	1908	15	8	23
1900	26	6	32	1909	17	14	31
1901	4	1	5	1910	16	17	33
1902	14	6	20	1911	20	15	35
1903	13	8	21	1912	15	16	31
1904	14	6	20	1913	18	19	37
1905	19	13	32	1914	21	22	43
1906	18	9	27	1915	14	18	32
1907	10	9	19				
					257	188	445

Of the 445 law students, 257 or 57.8% received diplomas, and 188 or 42.2% did not graduate. The ratio between these two groups is nearly 4 to 3, or, for every 4 graduates from the College of Law, there have been 3 non-graduates.

PHARMACY
Two-Year Course, Leading to the Degree of
Pharmaceutical Chemist

Class	Graduates	Non-Graduates	Total	Class	Graduates	Non-Graduates	Total
1897	7	4	11	1907	6	1	7
1898	5	9	14	1908	4	1	5
1899	1	1	2	1909	5	7	12
1900	3	5	8	1910	4	5	9
1901	2	4	6	1911	5	8	13
1902	3	5	8	1912	5	4	9
1903	4	7	11	1913	8	3	11
1904	5	3	8	1914	5	10	15
1905	4	5	9	1915	8	5	13
1906	2	2	4				
					86	89	175

Percentage of students who completed the course, 49.1.

Percentage of students who did not complete the course, 50.9.

Expressed in condensed form, the Certificate Courses yield the following results:

CERTIFICATE COURSES

	Courses Complete	Courses Incomplete	Total
Library Economy	7	1	8
Teachers' Course in Agriculture	3	0	3
School Course in Agriculture .	86	86	172
Home Economics	11	16	27
	<hr/> 107	<hr/> 103	<hr/> 210

Percentage of students who completed the course, 51.

Percentage of students whose course was incomplete, 49.

SUMMARY FROM THE PRECEDING DATA

	Courses Complete	Courses Incomplete	Total
Students in Four-Year Courses	1893	1567	3460
Students in College of Law .	257	188	445
Students in Pharmacy . . .	86	89	175
Students in Certificate Courses	107	103	210
Students in Advanced Courses only	32		32
	<hr/> 2375	<hr/> 1947	<hr/> 4322
Total	2375	1947	4322

Of the 4322 students thus represented, 2375 or 55% have completed their courses of study and received recognition by diploma or certificate, and 1947 or 45% have not received such recognition. The ratio between the two groups is 11 to 9, that is, for every 11 students who have completed their courses of study, there have been 9 who have completed them only in part.

For the purposes of this chapter, summer school

students and those in short winter courses have not been taken into account. For obvious reasons also, honorary degrees, of which some fifty or more have been given, have not been considered. Rather, this portion of the chapter has concerned itself with those who have been seeking earned diplomas and certificates, and with the relation existing between the number of those students who have been successful in this regard and the number of those, who, doubtless through no fault of their own, have not had the satisfaction of obtaining them.

CHAPTER XI

THE LIBRARY

IN the College Catalogue of 1868, the following statement in regard to the library appears: "The College has the nucleus of a library, to which, by special provision, additions will be made from time to time. It is earnestly hoped, moreover, that so important an auxiliary in the education of those who are to be students in the College will not be disregarded by the people of the State, but that liberal contributions will be made to it, not only of agricultural and scientific works, but also of works of interest to the general reader."

With slight modifications of form, this gentle solicitation appeared in the catalogues of the College for more than twenty years. That it was not without effect, there was clear evidence from year to year. In the way of illustration, the names of donors of books for the year 1870 are herewith given: Thomas C. Abbot, President of the Agricultural College, Lansing, Mich., Messrs. Orange Judd & Co., New York City, George W. Riddle, Esq., Manchester, N. H., Hon. S. L. Goodale, Saco, Maine, Hon. Hannibal Hamlin, U. S. Senate, Hon. John A. Peters, Bangor, Maine, Rev. Samuel F. Dike, Bath, Maine, Rev. William Lovejoy, Orono, Maine, Professor Benjamin Pierce, Supt. U. S. Coast Survey.

In addition it should be noted that the publishers sent free the following-named papers to the reading



THE UNIVERSITY LIBRARY

room: *The Sunrise, The Piscataquis Observer, The American Sentinel, The Maine Standard, The Aroostook Times, The New England Farmer, The Country Gentleman, Moore's Rural New Yorker.*

Thus one hundred and twenty-five volumes were added to the library and eight papers sent free to the reading room. As time went on, the list of donors of books increased and the list of free publications for the reading room also increased. The paragraph above quoted intimates that "by special provision, additions will be made from time to time" to the library. In 1870, books were purchased for it from the college treasury to the value of \$565.99.

The room for the library was in the chemical laboratory, now known as Fernald Hall. It was the first room at the left, on entering the building at the front. The reading room was in White Hall at first and subsequently in Oak Hall.

In 1872, the library was reported as containing over a thousand volumes, "some of which have been obtained by purchase, while others have been kindly presented to the College." The Holmes Library had already been secured. For the reading room, the free papers sent by the publishers had increased to eighteen in number, and nine journals and periodicals were obtained by subscription.

In 1873, the number of volumes in the library was reported to be fifteen hundred and the number of periodicals by subscription, twenty-five. The financial resource of the library in the early years of the College was Hon. Abner Coburn, President of the Board of Trustees. His benefactions were always timely and served to tide over hard places.

Previous to 1874, the oversight of the library had

been an accommodative and temporary matter in charge of different individuals. In 1874, Professor G. H. Hamlin was chosen Librarian. It should be understood that the librarianship was still an accommodative matter, not one of remuneration for services. The library at first was open one hour or two hours a week for the exchange of books, the real function of a library coming in later.

The following extract from Professor Hamlin's first report will be read with interest: "When I entered upon my duties as librarian, there were in the library 1,833 volumes. At the present time there are 2,052 volumes, showing an increase of 219 volumes. Of these, 64 volumes were purchased with the remainder of the one thousand dollars (\$1,000) given to the library by Ex-Governor Coburn.

"By the will of the Hon. C. B. Abbot, 130 volumes have come into possession of the library. Twelve volumes have been sent to the library by Senator Hamlin and 13 volumes by Mr. S. L. Boardman." In the closing part of his report, Professor Hamlin adds: "Since writing the above, we are gratified to learn that Hon. Mr. Coburn has added another \$500 to his generous donations to the library."

The increase in books and pamphlets for several years is shown by the following table:

1875 . . .	2370 volumes . . .	416 pamphlets
1876 . . .	2641 volumes . . .	583 pamphlets
1877 . . .	3648 volumes . . .	636 pamphlets
1878 . . .	3783 volumes . . .	674 pamphlets
1879 . . .	3974 volumes . . .	709 pamphlets
1880 . . .	4105 volumes . . .	750 pamphlets
1881 . . .	4189 volumes . . .	782 pamphlets

In 1875, 170 volumes were purchased from the

Coburn Fund, 45 were given by the Trustees of the Rufus Dwinel Estate of Bangor, and 25 were received from Hon. Hannibal Hamlin, and other volumes by contribution of other individuals. In 1876, 170 volumes were received from the Rufus Dwinel Estate. In 1877, 930 volumes were received from the Bangor Public Library. In 1878, a card catalogue was started. In the early years, among the generous contributors of books to the library, the names of Hon. Hannibal Hamlin of Bangor and Hon. S. L. Boardman of Augusta very frequently appeared. In 1884, Professor A. E. Rogers took the place of Professor Hamlin as librarian.

After the number of bound volumes in the library exceeded 4,000, it became necessary to pack away in boxes the books least in demand and most of the pamphlets, so small was the room which could then be assigned for the library, a condition remedied when Coburn Hall was completed in 1888.

In the year last named, Professor Hamlin was again in charge of the library. From his report, the following extract is taken: "It gives me pleasure to be able to report that the library has been moved from its crowded quarters in the Chemical Laboratory to new and commodious quarters in Coburn Hall where it is being catalogued, classified and arranged, in a manner to make it of the greatest use to the faculty and students, by Miss Harriet C. Fernald, a graduate of this institution, as also from the School of Library Economy, Columbia College. The College is fortunate to secure the services of one so well qualified to do this work. The system of classification adopted by Miss Fernald is that known as the Dewey decimal system, and the work is being carried on in a manner to interfere as little as possible with the usefulness of the library while the work is going on.

"There are now on the accession list 4,440 volumes of bound books belonging to the college library and 400 volumes which belong to the Experiment Station. There are also 375 volumes of unbound books which should be bound at once in order that they may be catalogued with the others and rendered of service to the institution. There are several hundred volumes of pamphlets which should be provided with cases in order that they may be readily accessible, and there are about 400 volumes of duplicates in the library.

"The books belonging to the Experiment Station are not allowed to be taken from the room except by officers of the institution, but the students are allowed to use them as freely as the others in the room, so that the whole number of volumes to which the students have access is 5,215."

In the same report, Professor Hamlin makes acknowledgment of a gift of one hundred dollars by Hon. Eugene Hale, U. S. Senator from Maine. This gift was used toward furnishing the library room.

In 1889, the writer was in charge of the library. In his report for that year as president of the College, the following statements, in regard to the library, appear: "The reorganization of the library referred to in the last report as in progress, has been completed. Four new cases have been supplied and all the books have been classified, catalogued and arranged in accordance with what is known as the Dewey System. This work of revision has been thoroughly performed by Miss Harriet C. Fernald, and has brought the library into condition of available service and usefulness. Appreciation of the valuable work accomplished is shown by the increasing use of the library by students and officers of the College.

"Within the year, the unbound volumes have been bound, together with a portion of the pamphlets. With accessions by gift, by exchanges, by purchase and by binding, the number of volumes in the college library is 5,440, and in the part of the library assigned to the Experiment Station, 507, making the total number to which students have access 6,047. The duplicates include 284 bound volumes. The pamphlets are not reported as the number is not great, and as it is the policy of the library to keep the number small by having the more valuable ones bound."

In 1890, the President's Report gives again the status of the library. In part it reads thus: "The number of volumes now in the library is 5,700 and the number in the part of the library assigned to the Experiment Station, 509, making a total of 6,209, exclusive of duplicates and pamphlets. The library is proving to be exceedingly useful to the students and to the members of the faculty. I believe the time has arrived when the number of periodicals supplied to the library should be increased, when a considerable addition should be made to its books, especially of current publications, and when the needful expense should be incurred of keeping the library open the greater part of the time."

These recommendations afford the surest possible testimony to the fact that the college in 1890 was passing from the "pioneer period" into the "period of development."

In accordance with one of the above recommendations, the services of a trained librarian were secured, through the election by the trustees of Miss Harriet Converse Fernald, M. S., to the librarianship of the College. In 1891, the new librarian's first report was submitted. The additions, presented in classified form,

were 646 volumes. The summary is thus given: 6,338 in the general library and 518 in that of the Experiment Station, making a total of 6,856 volumes accessible to students. The number of pamphlets was reported to be 1,139. In this report, the fact is recognized that "the library needs much building up in all departments; a large proportion of the technical books in the library are so old as to be of but very slight practical value." The inference given was: "The better the library is equipped, the greater the use that will be made of it."

In 1892, the librarian's report showed 7,006 volumes in the general library, 519 in the Experiment Station library or 7,525 in all, and about 1,600 pamphlets. Forty per cent. more books were drawn than during the preceding year. The report concludes thus: "One thousand volumes a year should be added to the library to keep pace with the development of the College in other directions."

In the College Report for 1893, Dr. Harris thus recognizes the needs of the library: "Among the pressing needs of the College is an increase of the funds for the purchase of books for the library." His recommendation was that a liberal allowance each year for books through a series of years, should be provided.

The librarian's report for 1894 indicated the whole number of volumes to be 8,370 and the number of pamphlets about 2,000.

A new course in Library Economy had been established and five young women were pursuing this course. The cares of the librarian were also increased by having the sale of text-books to students put in her charge. The librarian's chief recommendations, in view of the course in Library Economy, were in the line of making good the deficiencies of the library in

books on literature, especially European literature, and on history, travel, biography and fine arts. The recommendations covered also an increase in the list of the general periodicals.

In 1895, Dr. Harris reported "the total number of bound works on the shelves is 8,965," and "the use of the library is constantly and rapidly increasing."

The librarian's report for 1896 gives the additions in two years as 1,520 volumes, making the total number 9,890, and the pamphlets increased in number to between 3,000 and 4,000. The periodicals, largely technical magazines and reviews, on file in the library, were 97 in number. The suggestion was made in this report that the State College Library should contain a good collection of books of Maine literature, books about the State, by Maine authors, etc., and the recommendation made that such a collection be started. The closing paragraph of the report is as follows: "The work of the students in Library Economy has been satisfactory. Five young women have received certificates and two others are pursuing the course. The instruction in this course, however, added to the specific duties of the librarian, and the work involved in the supplying of text-books, makes much more work than one person can do satisfactorily, hence, I would respectfully ask to be relieved from the work of instruction in Library Economy." As noted elsewhere in this history, the course of Library Economy was discontinued at the end of the college year. In the middle of the year 1897, Miss Fernald resigned as librarian, married, and went west. Her successor was Mr. Ralph Kneeland Jones, B. S., Maine, 1886, who has served the University most efficiently as Librarian for nearly twenty years.

The history of the library and its growth from 1868

to 1897 has been given in much more detail than would have seemed needful, but for the fact that the history and growth of the library have been largely typical and illustrative of the history and growth of the College through the same period.

The essential point to be treasured, both as regards the library and the College, is this: In spite of limitations and occasional adverse conditions, they have made their way slowly, but surely and safely, to conditions of recognized and established usefulness.

This history of the library will be continued from 1897 to 1915 by the librarian who has served it so faithfully through all this period.

THE LIBRARY, 1897-1915

RALPH KNEELAND JONES

Before outlining the development of the library from 1897 to 1915, it seems desirable to review briefly the conditions under which it had existed for the 29 years preceding.

For the first 20 years, the library had lacked adequate quarters, as it was not until the erection of Coburn Hall, in 1888, that they could be provided. Continued appropriations for the development of the library and the employment of a librarian whose entire time could be given to its administration were not possible until 1890, when the added revenue given by the second Morrill bill marked the beginning of a new era. When Miss Fernald was appointed librarian, in 1890, the library contained 6,275 volumes, representing an average growth of less than 300 a year for the 22 years preceding. During her seven years' administration the rate of growth was doubled, averaging nearly 600 a year for the period.

The ten-year appropriation for the maintenance of the University by the legislature of 1897 made possible larger provision for library needs. Since that time the establishment of every new department has brought with it new demands. Changing methods of instruction have placed new responsibilities upon the library. The increase in faculty and students have brought ever growing requirements.

That the university authorities have enabled the library to meet new conditions is shown, as well as figures can show such a fact, by the following table, giving the number of volumes in the library on June 30, 1897, and on June 30, 1915:

	1897	1915
General Library	9,925	47,558
Agricultural Experiment Station Library	521	4,271
Law Library	—	4,844
Total	10,446	56,673

The development of the library from 1897 to 1915 falls into two nine year periods, the first preceding and the second following the erection of the library building, in 1906. During the first period, the average growth was over 2,000 volumes a year, and for the second, over 3,000 a year.

Perhaps a clearer idea of the growth of the library since 1897 may be gained by a comparison with the libraries of other institutions. The report of the United States Commissioner of Education for 1896-7 placed the number of volumes in Maine's library at 10,000. This number was equalled or exceeded by 178 of the 533 universities, colleges, and technical schools included in the lists. The report of the Commissioner for

1912-3, the latest available at the date when this is written, shows that Maine's library ranks 66th among the 596 reported. Statistics for 1913-4 from other sources indicate that in 17 years Maine advanced from 42nd among 79 state universities and colleges to 23rd among 88, and from 25th among 30 New England institutions to 14th among 31. Only 16 universities and colleges had libraries in 1897 as large as that of Maine in 1915; of the 16, three were in state institutions and six in New England. Of the six in New England, only one was less than a hundred years old, and that one was seventy-six years old.

The library, in 1897, occupied two rooms on the first floor of Coburn Hall, the large room at the rear and the one adjoining it on the south side of the main part of the building. The newspapers and some other periodicals were on file in Oak Hall, as had been the custom since the erection of that dormitory. They were transferred to Coburn Hall in 1899. The library was open during term time eight hours daily five days a week and four hours on Saturday. Text books for student use were sold in the library, and this practice was not discontinued until about 1903. For a year or two, about 1899, the university mail was handled in the library, and for some years a telephone pay station was maintained there. As this was the only instrument on the campus that the undergraduate body could use, it may be inferred that calls were not so frequent as they have become in more recent years.

Increasing use of the library made additional help necessary. A regular assistant was appointed in 1899, some student assistants having been used previously as they were also used later. The library hours during the college year were extended to eight and a half daily,

in 1900, and the library has not been closed for vacations since the summer of 1899. In 1903 it was kept open week-day evenings and Sunday afternoons for a time as an experiment, but the use of it was not sufficient to make this arrangement seem worth while. Another trial two or three years later indicated changed conditions so that the evening and Sunday afternoon hours were made permanent.

The growth of the library soon made additional space necessary, and when the university offices were removed to Alumni Hall, in 1900, the rooms in the basement which they had occupied were assigned to the library, with some additional space for storage. By 1904, the continued increase had made it necessary to pack in boxes some of the books seldom called for, and the problem of providing shelf room for future growth promised soon to become serious.

The gift by Mr. Andrew Carnegie of \$50,000 for the erection of a library building, made February 7, 1905, came at a most opportune time. Other than the librarian, no person knew that President Fellows had been in correspondence with Mr. Carnegie, and the announcement was a complete surprise to trustees, faculty, and students. Although the gift was not sufficient to make it possible to do all that was desired, it was enough to make it possible to take into consideration factors which in other buildings had of necessity been subordinated to space requirements.

In accordance with President Fellows' desires, the trustees authorized a competition of architects and employed Professor F. W. Chandler of the Massachusetts Institute of Technology as expert adviser. A list of items which the librarian desired to have provided was supplied each of the eleven competitors and every

one of these of any importance was arranged for in the plans adopted, those prepared by Brainerd and Leeds of Boston. These plans were recommended by Professor Chandler. It is interesting to record the fact that they were also the first choice of President Fellows and the librarian, as well as of three of the four members of the building committee of the Trustees. The building was planned to provide accommodations for a period of ten years and to be of such a character that additions could be made when necessary without destroying the architectural beauty of the original building.

The contract for the building was awarded to the Horace Purinton Company of Waterville. The foundation was build in the fall of 1905. The cornerstone was laid with appropriate exercises on Tuesday, June 12, 1906, and the building was dedicated November 2, 1906, with elaborate ceremonies.

The granite used was supplied by the Hallowell Granite Works at cost, and the stacks were built by A. D. Houghton, Maine '87, according to plans of his own design. The saving to the University on these two items alone was nearly \$20,000. Mr. Carnegie gave an additional \$5,000 for furnishings. No changes were made in the architects' plans after the contract was awarded, and no extras of any sort appeared in the contractors' bills. Excluding the excavating and grading, which were planned as additional expenses to be borne by the University, the actual cost exceeded the Carnegie gifts by the sum of \$36.00.

The books were moved from Coburn Hall to the new building during the Thanksgiving recess of 1906. During the transfer the library was not closed, and at no time was any borrower obliged to wait more than a few minutes for any book desired. This result was attained

by a simple system by which the books were moved a shelf at a time by some twenty-five students employed for the purpose. The location of each shelf in the old quarters was numbered, and a corresponding number was placed on the location in the new building to which the books were to be transferred. All of the books were moved in less than three days. Of course some readjustment was necessary later, but this was made by the regular library staff as opportunity offered.

The new building gave new opportunities and required additional assistants. Looking toward it, a cataloger had been appointed to begin work in the fall of 1906, and another assistant was added the next year.

The growth of the general library has been due in large part to increased funds which the university authorities have provided towards its needs, but gifts from many other sources have contributed materially to its enlargement. In the fall of 1897, through the courtesy of United States Senator William P. Frye, the library was placed on the list of depositories designated to receive the publications of the United States government, only a small portion of which had previously come to the library. The Superintendent of Documents has been of great help in filling gaps in the documents for years earlier than 1897, and considerable gifts of government documents have been received from the Bangor Public Library and the Bangor Theological Seminary Library. Hon. L. D. Carver, State Librarian, was exceedingly helpful in building up our collection of Maine documents so long as he lived, and his successors have continued his courtesy. Many institutions and organizations have given generously, including members of the faculty, alumni, and others having no direct connection with the Uni-

versity. The most valuable gift received came in 1911 by bequest of Professor Welton Marks Munson, Professor of Horticulture in the University and Horticulturist in the Agricultural Experiment Station from 1891 until 1906.

The general library has received on deposit the mathematical library of President R. J. Aley of over 700 volumes, and over 500 volumes from the library of the late Professor H. M. Estabrooke, together with some 25 volumes from the Christian Association and over 100 volumes from the Menorah Society. Although the title of these books does not vest in the University, and they are not included in the number of volumes in the library, they are catalogued and loaned as if regular library books. The books of the Agricultural Experiment Station have been shelved in the library building since 1913; although loaned only to members of the Station staff, they are catalogued and available for use in the building.

During the year 1914-15, two changes of policy were made. One of these permits departments which provide accommodations and supervision satisfactory to the Library Committee to withdraw from the general library books relating to the work of their departments which they desire to have at hand for easy reference, provided no books shall be so taken which any other department desires to have retained in the library building, and that any book shall be subject to recall at any time when needed. The Department of Physics has already placed several hundred volumes on physics in one of the departmental rooms in Aubert Hall. The other change is the transfer from the library reading room to the office of the Dean of the College of Technology, where they are available for use, of the current volumes of technical engineering journals.

With the opening of the College of Law, in 1898, a law library was provided at the college in Bangor. This library was burned in the Bangor fire of April 30, 1911. Eleven law students worked nobly in an effort to save a portion of it, but the vault in which the books were placed fell to the basement after the building was dynamited, and the intense and prolonged heat there destroyed its contents. One volume, however, which was not destroyed, is placed in the new law library as a souvenir of the earlier collection. The men worked until driven from the building by heat and smoke and several were obliged to jump from the second story windows, the exits having been cut off by fire.*

The law library was insured, and the expenditure of the sum of \$7,887.06, received from the insurance companies, was authorized for a new library. The principal publishers of law reports made special "fire" prices, and remarkably favorable terms were obtained on the text books. As a result, a new library of nearly 3,000 volumes was secured, practically as large as that destroyed. So far as its working value is concerned, the new law library was better at the start than the one burned. This was cataloged, made ready for use, and placed on the shelves in Stewart Hall before the College of Law opened the following fall. After the fire the law library received useful gifts from the Boston University, Harvard, and John Marshall law schools. It has received money gifts from the late General Charles Hamlin and annually from Hon. L. C. Southard, both Lecturers at the college. Noteworthy

*The names of these men are: F. P. Adams, 1912; A. J. Beck, 1913; E. H. Bowen, 1912; W. H. Dwyer, 1913; B. D. Harvey, 1911; L. I. Harvey, 1912; W. D. Owens, 1911; H. B. Rand, 1912; T. E. Sullivan, 1912; J. B. Tertzag, 1911; H. B. Westgate, 1913.

gifts have been received from Eliot N. Jones, Esq., of Boston, a native of Bangor, and from Porter, Witters and Harvey (L. I. Harvey, 1912 Law), of St. Johnsbury, Vermont.

The number of periodicals and society publications received currently has increased constantly, so that for the year 1914-15 it was over six hundred.

The circulation of books also has increased annually. The number charged at the delivery desk during the last college year was 11,007. This does not include books used in the library, of which no record is kept with the exception that about once a year the number of books taken from the "reserve" room is kept for a month; a representative month last year showed that 1,822 of these were used in the library during the period.

UNIVERSITY OF MAINE LIBRARY

In charge of

Acting President Merritt Caldwell Fernald, 1868-71.

President Charles Frederick Allen, 1871-73.

Professor Charles Henry Fernald, 1873-74.

LIBRARIANS

Professor George Herbert Hamlin, 1874-84 and 1886-89.

Professor Allen Ellington Rogers, 1884-86.

President Merritt Caldwell Fernald, 1889-90.

Harriet Converse Fernald, M. S., 1890-97.

Ralph Kneeland Jones, B. S., 1897—.

LIBRARY STAFF

Georgia Thomas Burrows, Assistant, 1899.

Thirsa Burr Sands, Assistant, 1900.

Geneva Ring Hamilton, Assistant Librarian, 1900-04.

Clara Estelle Patterson, Assistant Librarian, 1904-06.

Maude Brown Colcord, Assistant, 1906-08.

Jennie Elizabeth Dunmore, B. S., Cataloger, 1906-07.

Isabel Monro, B. S., Cataloger, 1907-09.

Bertha Corey Whittemore, Assistant, 1907-09; Cataloger, 1909-11.

Helen Waugh Stobie, Assistant, 1909-11.

Julia Lydia Crocker, Assistant, 1910-11.

Ella May Taft, B. A., B. S., Cataloger, 1911—.

Natalie Frederique Howe, B. S., Assistant, 1911-12.

Clara Penney, B. S., Assistant, 1912-13.

Geneva Alice Reed, B. A., Assistant, 1912—.

Anne Elizabeth Harwood, B. S., Assistant, 1913—.

CHAPTER XII

COEDUCATION

THREE and a half years after the opening of the Maine State College, a law was passed admitting women to the institution. This law was approved February 23, 1872.

At the beginning of the college year, 1872-3, Miss Louise Hammond Ramsdell of Atkinson, Maine, was admitted to junior standing and was graduated at the Commencement of 1874. The writer recalls one incident illustrating her power of mental application which may be read with interest. She was a member of a class in Practical Astronomy of which he was the teacher. The text-book used was Coffin's Nautical Astronomy. One formula frequently brought into service was derived from spherical trigonometry, but the making of the formula did not appear in the text-book on trigonometry which the class had used, nor in any other believed to be accessible to the class. Contrary to his custom, the teacher offered a reward of two dollars to the member of the class who should first make a correct demonstration of the formula. Its demonstration was far from easy. In due time, Miss Ramsdell appeared in the class-room with the solution complete and with her processes of reasoning fortified at every point. No other solution was made. The real value of this test was in the mastery of a somewhat abstruse mathematical problem by methods of her own.



MOUNT VERNON HOUSE

It is needless to say that Miss Ramsdell received the prize.

For more than twenty years, young women could come to the college only as they could establish themselves with families living on the Campus or in homes within walking distance of the college. Attendance, therefore, was necessarily limited and variable. In 1895, conditions were considerably improved for them by the opening of the electric railroad, and much more improved by the opening of Mt. Vernon House in 1898. A still larger gain in their interest was made by the building of one wing of Balentine Hall and the opening of it in 1914.

Another gain of different nature should not be overlooked; that is, the adaptation, particularly in recent years, of courses of study to their special needs. The wonder is, not that their number was small before the days of the trolley car, but that, under the conditions then existing, they came to the college at all.

The attendance of women students at the College and University, and the distribution in classes in the successive years since 1872, can best be shown in tabular form. An examination of the table discloses the fact that at no time since 1872 have they failed to be a factor in the life of the institution, and that at no other time have they been so large and important a factor as at the present day.

ATTENDANCE OF WOMEN STUDENTS

Year	Sen.	Jun.	Soph.	Fr.	Special	Graduate Students	Library Economy	College of Law	2 yr. Home Econ.	Total
1872-3		1								1
1873-4	1		1	2						4
1874-5		1	2	1						4
1875-6	1	3	1	3						8
1876-7	2	2	3	2						9
1877-8	1	3	3	7	1					15
1878-9	3	3	5		1					12
1879-80	3	5		1	1					10
1880-1	5		1	3						9
1881-2		1	2							3
1882-3	1	2		1						4
1883-4	2		1							3
1884-5		1	1	2	2	1				7
1885-6		2		4	1					7
1886-7	1	1	3							5
1887-8	1	3			1					5
1888-9	2									2
1889-90				1						1
1890-1			1							1
1891-2		1		1						2
1892-3					2					2
1893-4					2					2
1894-5				2	1		6			9
1895-6			2	8	1		3			14
1896-7		3	4	3	6		2			18
1897-8	3	3	1	3						10
1898-9	2	1	4	5	3			1		16
1899-00	2	3	5	6	2			1		19
1900-1	3	4	5	2	4	1				19
1901-2	4	4	3	4	1					16
1902-3	3	4	3	5	2	4		1		22
1903-4	4	3	2	6	3					18
1904-5	3	3	5	6	3	1				21
1905-6	5	4	6	7	10	5				37
1906-7	4	6	9	7	1	6				33
1907-8	7	6	6	10	9	4				42
1908-9	6	4	8	14	8	4				44
1909-10	3	8	14	10	5	1				41
1910-11	7	13	6	9	4	3		2		44
1911-12	13	4	10	25	3	1		2	5	63
1912-13	6	10	20	22	3	3		3	15	82
1913-14	9	17	20	34	11	1		5	11	108
1914-15	16	19	30	40	1	7		2	38	153
1915-16	14	37	37	39	4	10		1	25	167

Average, 25 a year.

The range in numbers as shown by the table is from 1 to 167, the latter number being attained in the present academic year of 1915-16; or including one woman student in Pharmacy not covered by the table, the latter

number becomes 168. The average attendance has been twenty-five per year.

The foregoing classification of the table does not include summer school students or any in short winter courses. It is designed to include, in the main, the women students seeking diplomas or certificates.

With the two exceptions noted, the table is believed to be nearly although not completely exhaustive. It becomes exhaustive, by adding to what the table presents, five women students in Pharmacy, two in the short course in Agriculture and six who have received advanced degrees only from this institution, making thirteen in all.

Under the classification of the table, the names of 496 different women students appear in the catalogues. To this number should be added the 13 named above, as outside the classification, making in all 509 women students who have received their mental training largely from the Maine State College and the University of Maine.

The writer would be glad to round out the number and make it 510, by including in the list the name of a former distinguished Superintendent of Schools in Bangor on whom this institution conferred an honorary degree. However, as the granting of this degree involved no attendance on the part of the recipient, except possibly attendance to receive it, we shall have to hold for the present the number of different women students at 509.

Of these 509 young women, 168 are now in attendance, leaving 341 who have previously completed wholly or in part courses of study in this institution. Of this number, 139 have graduated, receiving diplomas or certificates, and 202 have completed only in part their courses of study.

Summarizing results in a sentence, the average attendance of women students has been twenty-five a year; 509 have availed themselves of the advantages of the College and University; 202 have pursued partial courses; and 139 have completed their courses of study and been graduated.

The number of women students now in the University is larger than ever before, and, with the accommodations open to them and in prospect, the outlook for them and their successors, is, in every way, most encouraging.

The part which the women students have borne in college life is not indicated simply by numbers. The nature and quality of their work, their standing in scholarship and character, the ideals which they have brought and maintained, are far more important factors in the life and service of the institution.

In the matter of scholarship, an examination of the pointing of certain indices furnished by published records of the University, for a period of ten years, from 1905-6 to 1914-15, shows interesting results. The indices are appointments to the sophomore and junior exhibitions, the winning of general honors, and the winning of membership in the honor organization of Phi Kappa Phi. The results can be briefly given.

The students considered were those in the regular four-year classes and the special students. Of the entire group, the women students constituted nearly 9%. In the period under notice the appointments reported for the sophomore exhibitions numbered 78. Of these 13 were women, or 16.7%. The appointments for the junior exhibitions number 62, of which 19 or 30.6% were women.

So far as the writer is aware, the principle of

chivalry has never come in, in making these appointments. In the period under examination 111 students were reported as entitled to general honors, of whom 26 were women, or 23.2%. The whole number of students winning membership in Phi Kappa Phi was 104. Of these 25 were women or 24%.

Whether like ratios would obtain over a more extended period of time, cannot now be determined. It is certain, however, that from the first, the women students have maintained high standing in the classroom, and in competitive exercises. Not only in scholarship, but in other regards, especially in those which represent the higher and finer qualities of human nature, they have measured up to high standards.

They have entered freely into social events and general college activities. They have maintained their own special organizations, musical, recreative, philanthropic, religious. In all that has pertained to the best life of the College and University, they have borne no unimportant part.

Fortunately, at this institution, what has been termed the coeducational problem has proved in no way a difficult one, but rather one easy of solution through the mutual coöperation and good will of all parties in interest.

In a word, experience here for forty-three years with the different phases of this problem has served to confirm the wisdom of the legislative enactment whereby women were admitted to the privileges of this institution.

Equally with men, they have shared these privileges, and under the law, equally with men, they will continue to share whatever educational facilities and advantages the University of Maine can offer.

CHAPTER XIII

THE COLLEGE OF AGRICULTURE AND EXTENSION COURSES

DEAN LEON STEPHEN MERRILL

IT might be expected that the chapter on the College of Agriculture would begin with the first official announcement of the establishment of the college as an educational unit of the University, and if we were concerned only in the structural development of the college it is quite probable that such a plan would have been followed. For many reasons, however, it seems desirable that mention shall be made of the conditions that preceded this event.

The classification of all agricultural courses under the heading "The College of Agriculture," in the University Catalog of 1898, must be accepted as an official recognition of the existence of separate colleges in the University at that time. It should not be assumed, however, that this announcement represented anything more than the beginning of the development of the several colleges of the University. There was in reality no separate college entity at that time nor was there any college administration as distinguished from University administration, except in agriculture, where a plan of administration had existed for years, probably from the opening of college in 1868. In 1894 the Professor of Agriculture was officially designated as Head Professor of Agricultural Courses. This appointment was accompanied by the statement "The Professor of Agriculture has held this place for many years by common



WILLIAM DANIEL HERD



LEON STEPHEN MERRILL

consent." The agricultural work of the institution was therefore in charge of an administrative officer before as well as after the establishment of the College of Agriculture. The Professor of Agriculture continued as Head Professor of Agricultural Courses until 1906 when the title was changed to "Dean" and the "ex-officio" relationship discontinued.

Prior to 1889 there was but one department in agriculture, known as the "Department of Agriculture," the Head of which was responsible not only for the kind and character of the courses of study offered but also for the management of the farm and livestock. The experiments in agriculture authorized by the Board of Trustees, were also under his direction until the establishment of the Experiment Station in 1888, when they were transferred to that institution. The college farm has been under the management of the Department of Agriculture, or Agronomy, as it is now known, since 1868, except from the beginning of 1898 to September, 1903, when it was in charge of the Experiment Station. As other departments were authorized, the Department of Agriculture was gradually relieved from teaching all subjects excepting those now taught by the Department of Agronomy, and in 1905 the name of the department was changed to Agronomy.

The Department of Veterinary Science was established in 1889. This marked the beginning of the segregation of agricultural courses or subjects into groups, and the organization of departments for more effective administration and teaching of these subjects. In 1894 Bacteriology was introduced as a required subject in the Course in Agriculture and assigned to the Department of Veterinary Science. Two years later the name of the department was changed to Bacteriology and Veterinary Science.

The next department authorized was Horticulture in 1891. To this department was assigned the teaching of all subjects in Pomology, Olericulture, Floriculture and Landscape Gardening, and also the supervision of the orchards, gardens, and greenhouses. For many years the department was in direct charge of the college grounds, but during more recent years, since the appointment of a Superintendent of Grounds, its relations to this work have been of an advisory nature only.

In 1893 the Department of Animal Industry was established. To this department was assigned charge of the herds and flocks on the college farm, and the teaching of subjects falling within Animal Husbandry, Dairy Manufacturers and Poultry Husbandry lines. The departments authorized subsequently were as follows: Biological Chemistry in 1897; Forestry in 1902; Agricultural Chemistry in 1903; Biological and Agricultural Chemistry embracing the Departments of Biological Chemistry and Agricultural Chemistry, in 1907; Agricultural Extension in 1907, and Domestic Science in 1909. The name of the Domestic Science Department was changed in 1912 to Home Economics. The Forestry Department was transferred in 1904 to the College of Technology, but was retransferred to the College of Agriculture in 1907. The Department of Biology, because of its important relation to agriculture, was made a department of the college in 1911, still retaining its connection with the College of Arts and Sciences.

Prior to 1911 the administrative functions of the college were such as had accumulated through custom, but at that time a definite college organization was created by the Trustees with certain specific administrative duties devolving upon it. The College of Agri-

culture now comprises the departments of Agronomy, Animal Industry, Bacteriology and Veterinary Science, Biological and Agricultural Chemistry, Biology, Forestry, Home Economics, Horticulture, and Agricultural Extension.

The establishment of the College of Agriculture and Mechanic Arts was an ambitious project for the State to undertake. This was especially true of the attempt to develop an agricultural course of study which would furnish an adequate training for the business of farming as well as the professions of teaching and experimentation. There were no text-books adapted to class-room use, nor could it be said that there was any considerable body of organized agricultural knowledge in existence. A training in the sciences, usually a knowledge of the art of farming, and sometimes experience in teaching comprised the chief qualifications of the agricultural teacher in the early days of the institution. As would be expected under such circumstances, the educational work in agriculture began in a very modest and uncertain way. The material on which to build an educational program consisted chiefly of science on the one hand and farm practice on the other, without the existence of any well recognized connection between them excepting the teacher in charge, and herein lay the principal difficulty attending the attempt at that time to create an educational system in agriculture, since it depended on the teacher rather than upon a definite body of facts to establish the proper connection.

The thought that with a well equipped farm, connected with an institution having trained scientists in its employ and provided with a competent farm superintendent as instructor in agriculture, the teaching of

agriculture would be an easy matter, seems to have been the basis upon which at first the educational program in agriculture rested. It is now apparent, that here as elsewhere, agricultural education was undertaken as an experiment, although this fact does not appear to have been generally recognized.

During the first three years the course of study was alike for all students, except in a few instances where electives were offered. Students were all required to labor on the farm a certain portion of each day, but not exceeding three hours. This requirement was considered a part of the training given students and was regarded as mental and physical discipline rather than as an effort to provide remunerative employment for those taking the course of study.

With the opening of college in 1871 a course of study designed especially for students in agriculture was offered. The first and second years of all courses were alike, hence the segregation of students into the several courses of which there were three prescribed, agriculture, civil engineering and mechanical engineering, did not take place until the beginning of the third year. It is not possible to determine the relative amount of time given to agricultural and to other subjects until after 1890 when the amount of time given to each study was stated in the catalogue. It is evident that from the beginning, prominence was given to the sciences related to agriculture, and if no great amount of agriculture was taught in those early years, it should be remembered that the gulf between the sciences and farm practice had not then been bridged. To cover this deficiency, farm practice was required as a part of the course of study, each afternoon during the freshman year. Students were also required to devote a part



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of each afternoon during the second semester of the junior year and the first semester of the senior year to experimental farming. Experiments in considerable numbers had been conducted on the College farm from the first, and the upper classmen were required to assist in supervising these experiments, to keep accurate records, and to report on the results at the close of the season.

As experience accumulated, frequent revisions were made for the purpose of developing more completely the agricultural course of study. Each revision brought about a better organization of the relation of subjects to each other and also increased the amount of work required in strictly agricultural subjects. The development of the course of study in agriculture followed this general plan for nearly twenty-five years when a slight change in the policy governing the revisions of the curriculum may be observed.

From the first the course of study was defined as "Scientific, technical and broadly educational" but in the Annual Report of the President of the College for 1896 the course in agriculture in its relation to the sciences and especially to chemistry was more clearly defined. The President said, "The Agricultural Course is both technical and broadly educational. It is largely the same as the chemical course, the more technical chemical courses being replaced by courses in Biological Chemistry, Bacteriology, Botany, Feeding of Animals, and strictly technical agricultural studies." The tendency of the revisions of the agricultural curriculum during the decade preceding 1901 was in harmony with this definition of the course of study, and the effects of the revisions made during this period, were to increase the science requirements for

graduation, to slightly reduce the number of college hours given to agricultural studies and to concentrate them within the last two years of the college course. The science requirements for graduation from the Agricultural Course in 1900 were 70 college hours, 33 of which were in chemistry. The requirements for agricultural subjects were 23 college hours.

The next important revisions of the courses of study occurred in 1903 and 1904. The purpose of these revisions seems to have been two-fold: First, to more nearly equalize the amount of work required in the sciences and technical agriculture; and, Second, to distribute the required subjects in technical agriculture more evenly throughout the entire four years' college course. The science requirements were reduced from 70 to 33 college hours and the requirements in technical agriculture increased from 23 to 45 college hours. It will be observed that the results accomplished by these revisions were diametrically opposed to the results of the revisions of 1891 to 1900. Since 1904 several important changes in courses of study have been made but none of these revisions changed the principles established by the revision of 1904. In 1906 all curricula in the College of Agriculture were put on the thirty credit basis, requiring 150 college hours for graduation. Other revisions have been chiefly concerned with the adjustments found necessary from the introduction of new major courses of study and with increasing the number of elective hours in the curricula offered by the college.

During the ten-year period beginning with 1902, eight new major courses of study leading to the degree of Bachelor of Science were offered. These courses comprised one each in Forestry, Home Economics, and

Biology and five in Agriculture. The major courses of study now offered by the college are: Agronomy, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Horticulture, Poultry Husbandry, and Agricultural Education.

A two years' course in agriculture including most of the scientific and agricultural studies of the full four years' course, but omitting all literary studies, was announced in 1890. This course was offered in response to the thought that there might be many young men who were not in position to take a full four years' course in college, but who would be glad of the opportunity to secure such training as the college had to offer in agriculture and the related sciences, if such subjects could be grouped together in a shorter course of study. It soon became apparent, however, that the importance of agricultural education had not become sufficiently understood to insure the necessary support, and the course was discontinued in 1897.

In 1903 at the time the four years' curricula in agriculture were radically revised in the direction of offering a larger proportion of work in technical agricultural subjects, the idea of a two years' course in agriculture was revived. The proposition met with the approval of the College of Agriculture and the University authorities and a two years' course, or "The School Course in Agriculture" as it was officially known, was offered with the opening of college in 1903. This course was designed to train young men and women, who wished to become farmers, dairymen, or gardeners, but who could not devote time to high school or college training. Persons not less than 15 years of age who were prepared for advanced grammar or high school work were eligible for registration. The

course of study was made up almost exclusively of subjects strictly agricultural in character, but of elementary grade when compared with the technical agricultural subjects required in the four years' curricula. The introduction of the course met with an immediate response. Six students registered the first year and the average attendance since then has been approximately twenty-five, with an average attendance of forty-one during the last five years.

The "Agricultural Plant" at first comprised the farm, farm buildings and a limited equipment of machinery, tools and livestock. Interest appeared to center for several years chiefly upon the farm, very little attention being given to the equipment of the class room. This situation was probably due to a lack of definite knowledge of the kind of working plant needed for teaching agriculture. Experience soon demonstrated, however, that the class room and laboratory were to take a prominent part in the training of students in agriculture and thenceforth they shared in the general plans for development.

It is the intention of the writer, not to attempt any detailed description of the development of the agricultural plant but merely to enumerate the most important additions and improvements and to make such explanations as shall appear necessary. Many improvements have been made on the farm since the establishment of the College. Comparatively large areas of land not previously available for such purposes, have been brought into tillage, the productivity of the farm lands doubled, and the area increased by the purchase in 1908 of one hundred and ten acres of land located near the University farm.

Among the more important additions to the farm

buildings may be mentioned the erection of a new barn in 1873, a model poultry house in 1897, and two modern dairy barns now under construction, designed to house approximately one hundred and fifty head of cattle.

The livestock on the farm has received its share of attention. In 1874 a few pure bred cattle of fine quality, were purchased to serve as foundation stock for the establishment of pure bred herds of some of the more important breeds. Eight years later the importance of dairying was still further recognized by the purchase of a herd of cows carefully selected with reference to dairy production. In 1886 the plans of the college along dairy lines were suddenly interrupted by the loss of the entire herd of cattle from tuberculosis, and it was not until 1888 that the beginning of the establishment of another herd could again be made. Since then the college herd has been gradually increased to approximately one hundred head, and includes representatives of the Jersey, Holstein, Ayrshire, Guernsey and Polled Angus breeds.

The erection of Coburn Hall in 1888, designed especially to provide class room and laboratory accommodations for the Departments of Agriculture and Natural History, marked a distinct advance in the development of the agricultural work of the College. The construction of this building was followed by appropriations for new greenhouses in 1889 and the present dairy building in 1890. During the next seventeen years no additions of consequence were made to that part of the "plant" used strictly for class or laboratory purposes. The college meanwhile had experienced a substantial growth, the accommodations provided in Coburn Hall had long since been outgrown, and an

overflow had taken place into rooms inconveniently located and poorly adapted to teaching purposes. The need of class rooms and laboratories to provide for the large yearly increase in the number of students finally became so urgent that an appropriation was made by the Legislature of 1907 for the construction of an agricultural building. The erection of this building, now known as Winslow Hall, in 1908, marked the beginning of a new epoch in the history of the college. It not only provided a "home" for all departments directly connected with the college but it also provided, for the first time, suitable and well equipped class rooms and laboratories for their uses. The Stock Judging Pavilion and the Poultry Building were also erected in 1908 and these were followed by the remodeling of "The Maples" for the use of the Home Economics Department in 1913.

The first important addition to the agricultural laboratory equipment was made in 1881 and consisted of model dairy apparatus for use in the manufacture of butter. Many other improvements have been made since then and the laboratories of the various departments are now well equipped to provide opportunity for efficient and satisfactory work.

The number of students taking Agriculture was not large at first, and contrary to the expectations of those who were especially interested in the College the numbers did not increase with the development of other departments of the institution. There were years when the registration dwindled to very small proportions. This condition continued to exist until 1903 when there occurred a decided increase in the number of agricultural students. This increase marked the beginning of a period of rapid and uninterrupted

growth in the size of the student body. In 1905 there were thirty-one students registered in the College of Agriculture. The number had increased to one hundred and forty-two in 1910, and three hundred and thirty-one in 1915.

The graduates from the College of Agriculture have to a great extent engaged in the vocations for which they were trained. The percentage distribution of the graduates from the college according to present vocation is shown in analytical form in the following tables:

TABLE I. AGRICULTURE

Farming	60.6
Teaching and Experimentation	11.4
State and United States Departments of Agriculture	5.8
Dairy Manufacturers and Supplies	3.4
Agricultural Extension Service	2.9
Miscellaneous	2.9
<hr/>	
Total in known agricultural lines	87.
Business	6.5
Unknown	6.5
<hr/>	

100

TABLE II. FORESTRY

Forestry	70.6
Teaching and Experimentation	8.8
Business	17.6
Unknown	3.
<hr/>	

100

All graduates from the Home Economics curriculum are engaged in vocations for which they received their training.

The educational standards of the college compare favorably with those of other technical institutions offering similar training. The requirements for graduation are about equally divided between scientific, professional, and other subjects.

Extension work in agriculture has long been recognized as a proper function of the College. The agricultural faculty were called upon as early as 1881, and possibly at an earlier date, to lecture on agricultural topics at farmers' meetings and to give advice by mail on farming problems. Farm Courses and Reading Courses were offered in 1893. The Farm Courses were two weeks in length and were held in various communities on the application of a required number of farmers. All expenses including the travelling expenses of the instructors from the College were paid by those attending the Course. During the year ten very successful Courses were held with a registered attendance of 257, exclusive of visitors. Correspondence Courses were substituted for the Reading Courses in 1903. Comparative demonstrations, including the use of fertilizers, variety tests of corn and small grains, were undertaken the same year with several hundred farmers. In 1906 two agricultural trains or "Farming Specials" were run over a considerable part of the lines operated by the two principal railroad companies of the State. This project had the active coöperation of the College of Agriculture, the Department of Agriculture, representatives of various agricultural organizations, writers for the agricultural press, the Maine Central and Bangor and Aroostook Railroad Companies.

The extension work gradually increased in volume and in 1907 it became necessary to establish a Depart-



WINSLOW HALL.

ment of Agricultural Extension in order that proper supervision might be given to the service. The wisdom of this move soon became apparent. Interest in extension work developed more rapidly. Requests for lectures and demonstrations by members of the agricultural faculty were received in greater numbers than could be granted. Two new types of extension work, "Farmers' Week" and the publication of a bulletin known as "Timely Helps for Farmers" were undertaken. The first "Farmers' Week" course given in 1907 was attended by nearly 500 people. This course has been continued since then as an annual event, with an attendance ranging from four to five hundred. "Timely Helps for Farmers" was issued monthly and was intended to present information of timely interest and importance to farmers. This publication was continued until 1915, when the name was changed to "Extension Bulletin" and the monthly issue of the bulletin discontinued. "Farming Specials" were again run in 1910 and 1911. The 1910 "Special" covered a part of the lines operated by the Maine Central, Boston and Maine, Somerset, and Washington County Railroad Companies, and the 1911 "Special" reached that part of the State traversed by the Bangor and Aroostook Railroad. As in 1906, the various agricultural agencies of the State, including the Agricultural College, the Department of Agriculture, the Grange, representatives of agricultural organizations, and the agricultural press coöperated with the several railroad companies in running these trains.

The Director of Extension Work appointed in 1907 was required to devote approximately one-half his time to instructional work in the Department of Agronomy. He continued to exercise this dual function until 1910

when he was relieved from the duty of giving instruction to resident students. The growth of Extension work in 1910 and 1911 was shown principally in the volume of service rendered. It has been the purpose of the writer to outline the development of the Extension service to this point, as nearly as possible in chronological order, but beginning with the year 1912, it will be necessary, because of the number of extension projects undertaken, the various types of extension work in use and the rapid increase in the number of extension representatives of the college, to abandon the method heretofore used of referring to extension activities in the order in which they occurred.

Immediately following 1911 the Extension Service entered suddenly upon a period of remarkable growth. It became necessary at once, to formulate policies governing its organization and administration. As a result of the investigation made at this time it was decided to place all extension work of the college on what is known as the "project" plan. This plan requires that prior to beginning any project, a definite and concise statement of the purpose of the project, the method of procedure, the organization for carrying it into effect and the estimated cost shall be made. The several projects under way in 1912 including correspondence courses, lecture service, and advice by mail were continued.

The first project to be undertaken under the new plan was the County Representatives or, as it is more familiarly known in Maine, Farm Demonstration work. This project was started in the fall of 1912 in three counties, Cumberland, Kennebec and Oxford. In the three years following 1912 seven counties were added to the project, Penobscot and Washington in 1913,

Hancock, Franklin, Sagadahoc and York in 1914, and Piscataquis in 1915. The organization of this project requires the appointment of a representative of the college to take charge of the work in each county. New counties were added to this project as rapidly as additional funds for its support became available. The principal types of extension work comprising the County Representatives Project are: Farm demonstrations, including farm management and economic production demonstrations, extension schools, boys' agricultural clubs, girls' garden and canning clubs, dairy testing associations, county breeders' associations, publications and campaigns. The projects in extension schools, dairying and the organization of boys' agricultural clubs were started in 1913, girls' garden and canning clubs and poultry management in 1914, farm management demonstrations, soil fertility and extension work in home economics in 1915. These projects, while they are under the general supervision of extension representatives having headquarters at the college, have very close coöperative relations with the County Representatives' work. The County Extension Representative is in direct charge of the work covered by these projects in his county.

The table given below will indicate the scope of the Extension Service and the number of persons directly reached by the different lines of activity in 1915.

SUMMARY OF PRINCIPAL LINES OF EXTENSION WORK

Number Counties with Extension Representatives	10
Number Economic Production Demonstrations	427
Number Farm Management Demonstrations	470
Number Boys' and Girls' Clubs	51
Membership in Boys' and Girls' Clubs	470

Number Extension Schools Held . . .	28
Total Attendance at Extension Schools . .	5,476
Number Cow Test Associations Organized . .	6
Number Demonstration Exhibits at Fairs, Shows and Associations	16
Number People Visiting Exhibits and Attend- ing the Demonstrations	28,559
Number Farmers Called on by County Repre- sentatives	7,173
Number Persons Taking Correspondence Courses	75
Number Lectures and Demonstrations . .	688
Number Persons Attending Lectures and Dem- onstrations	42,830
Average Attendance at Lectures and Demon- strations	62
Number Persons Advised on the Farm . . .	1,447
Number Letters Written in Reply to Inquiries Received from Residents of Maine . . .	30,000
Number Bulletins Published	11
Copies of Bulletins Printed	52,100

The extension faculty may be divided according to function into three groups: administrative officers, specialists, and county representatives. The administrative officers comprise the director, assistant director, assistant state leader of county representatives' work, state leader of boys' agricultural clubs, and state leader of girls' garden and canning clubs. The specialists include extension representatives in home economics, dairy husbandry, poultry management, soils and farm management demonstrations. The County Extension Representatives, ten in number in 1915, are in direct charge of all extension work in the counties included in the County Representatives project. This plan of organization conforms very closely to the one in general use by other agricultural colleges.

Extension work was conducted under authority granted by the Board of Trustees until 1914 when the passage of the Smith-Lever Agricultural Extension Act by Congress and the acceptance of the provision of the Act by the State, provided National and State authority for coöperative extension work in Agriculture and Home Economics between the College of Agriculture of the University and the U. S. Department of Agriculture.

The County Representatives' work begun in 1912 was supported from an appropriation made by the General Education Board amounting to eight thousand dollars. This appropriation was gradually increased to twenty-one thousand dollars which furnished the means for the support of the boys' agricultural clubs and girls' garden and canning clubs projects and the Extension Representatives' work in six counties.

By the provisions of the Smith-Lever Act, the State of Maine received from the Federal Government the sum of ten thousand dollars to be expended under the direction of the University. There will also be available from the Federal treasury additional amounts increasing in certain definite proportions for eight consecutive years, provided equal amounts are appropriated by the State. The Legislature of 1915 not only accepted the provisions of the Smith-Lever Act but made the initial appropriations necessary for the State to receive the amounts available under the terms of the Act for the years 1915-16 and 1916-17. The Smith-Lever extension funds amounted to \$10,000 in 1914 and \$18,777 in 1915. The appropriations for 1915-16 provided for the support of County Representatives' work in four counties, the extension projects in dairying, soils, home economics, extension schools and partially

for the projects in administration, publications, and farm management demonstrations. All other projects were supported from University funds.

The Smith-Lever Act specifically states: "That coöperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise." It also further provides, that "no portion of said moneys shall be applied, directly or indirectly to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, or in college course teaching, lectures in colleges, promoting agricultural trains, or any other purpose not specified in this Act, and not more than five per centum of each annual appropriation shall be applied to the printing and distribution of publications." The function of the Agricultural Extension Service of the University is therefore, to give instruction and practical demonstrations in Agriculture and Home Economics to persons not attending or resident at the College of Agriculture in the several communities of the State.



WHITMAN HOWARD JORDAN



CHARLES DAYTON WOODS

CHAPTER XIV

AGRICULTURAL RESEARCH AT THE UNIVERSITY OF MAINE. THE MAINE AGRICULTURAL EXPERIMENT STATION

DIRECTOR CHARLES DAYTON WOODS

IT is difficult to realize at this day that only forty years ago the body of agricultural truth that is now so well established was so far from a fact that a professor of agriculture in his annual report could truthfully say that there were no text-books on the subjects which he was expected to teach and that "information could only be gathered here and there, from books and papers, from my own experience and that of others, as opportunity offered."

It was this paucity of agricultural truth that early led the colleges of agriculture to begin studies that would give facts upon which instruction could rest. It certainly was a new day in American education, when undergraduates were used to make original experiments as a foundation for their own instruction! The Maine College of Agriculture began its work of research coincident with the opening of its doors to students. And I am using the word "research" strictly in accord with the definition laid down in the Standard Dictionary: "Research. Diligent, protracted investigation, especially for the purpose of adding to human knowledge." The first problem begun at the Maine State College was an investigation in feeding swine that continued over a period of nine years with a large number of in-

dividual animals. This, together with a field test of 61 varieties of potatoes, was begun in the first year of the College by Mr. Samuel Johnson, Instructor in Agriculture, and continued by his successor, Mr. J. R. Farrington.

From the founding of the College to the establishment of the Experiment Station by the State in 1885, agricultural experimentation was made a leading factor in the work of the professors of agriculture. Mr. J. R. Farrington served thus for nine years and W. H. Jordan for two. It was during the time that Professor Walter Balentine so ably filled the chair of agriculture that the Station became a fact, and for the first three months of its existence Professor Balentine served as its acting director. With the establishment of the Station the line of demarcation between teaching and research was made. And from that time (April 1, 1885) all of the research in agriculture at the Maine State College and the University of Maine has been conducted under the auspices of the Station. No small credit is due the men who, in the days of the beginning of things agricultural, in spite of the large demands upon their time and with limited apparatus and resources, undertook with so much of zeal and so much of painstaking an inquiry into the facts underlying the agricultural practices of their times in order to discover how these practices could be bettered.

THE FIRST MAINE STATION

The Legislature of 1885 enacted the law establishing the Maine Fertilizer Control and Agricultural Experiment Station. The purpose of the Station was defined in Section 1 of the Act (Chapter 294 Public Laws of 1885) as follows: "That for the purpose of

protection from frauds in commercial fertilizers, and from adulterations in foods, feeds and seeds, and for the purpose of promoting agriculture by scientific investigation and experiment, the Maine Fertilizer Control and Agricultural Experiment Station is hereby established in connection with the State College of Agriculture and Mechanic Arts."

This act was approved by the Governor, March 3, 1885, and early in April the Station was organized with a Board of Managers consisting of: Prof. Walter Balentine, Professor of Agriculture in the Maine State College; Hon. Z. A. Gilbert, North Greene, Secretary of Maine Board of Agriculture; Benjamin F. Pease, Cornish; Hon. S. L. Boardman, Augusta; and William Downs, Sebec. The officers of the Station consisted of Whitman H. Jordan, Director and Chemist; James M. Bartlett, Assistant Chemist; Gilbert M. Gowell, Superintendent of Field and Feeding Experiments.

The Station was dependent for its quarters upon the hospitality of the Maine State College. A chemical laboratory was partitioned off from the main college laboratory and supplied with apparatus. Part of the dairy room of the college was fitted up with apparatus for use in experiments involving the handling of milk. A part of the new barn just erected by the College was turned over to the Experiment Station for feeding experiments and was fitted up with stalls, scales, etc. Field experiments were started by laying off about three acres of land into plots, and box experiments for growing plants were also begun.

While the principal object of the establishment of this station was the maintenance of a fertilizer control, it at once undertook the continuance and widening of the lines of agricultural research that were begun with the opening of the College.

Dr. W. H. Jordan was Director of the Station from 1885 to June 30, 1896, when he resigned to take the directorship of the New York Experiment Station. Mr. James M. Bartlett was appointed assistant chemist at the establishment of the Station. It is a noteworthy fact that Mr. Bartlett has been actively engaged in the work of the Station continuously since his appointment May 1, 1885.

THE REORGANIZATION OF THE STATION

The Maine Fertilizer Control and Agricultural Experiment Station existed about two and a half years and issued twenty bulletins and three reports, the former being published only in the leading papers of the State and the latter as a part of the report of the Maine Board of Agriculture. Upon the passage by Congress of what is known as the Hatch Act, establishing agricultural experiment stations in every state, the Legislature of 1887 repealed the law of March 3, 1885, by an act which took effect October 1, 1887. It was expected at the time this act was passed, that by October 1st a station would be in operation under the provisions of the national law. This did not prove to be the case, owing to the failure of Congress to appropriate money, and had not the College assumed the risk of advancing the funds to pay the expenses of the Station, work would have ceased on the date in which the old State law stood repealed. As it was, work was continued until January, 1888, when the station force disbanded to await the action of Congress. It was not until after the passage of the deficiency bill early in February, 1888, that funds became available for the payment of the expenses of the year 1887-1888. Prior to this, the Maine Legislature of 1887 had accepted

the provisions of the Hatch Act on the part of the State, and at the meeting of the College Trustees in June, 1887, the present Station was organized as a department of the College (now University) by the election of a director and two other members of the staff of officers.

THE STATION COUNCIL

At a meeting of the Trustees, held February 16, 1888, a general plan for carrying out the provisions of the Hatch Act, involving the expenditure of \$15,000 per annum, was presented to the Board of Trustees and was accepted by them, and the development and management of the Station under this plan was placed in the charge of a Station Council, made up of the President of the College, the Director of the Station, the heads of the various departments of the Station, three members of the Board of Trustees, and a representative from the State Board of Agriculture, the State Pomological Society and the State Grange. As other State-wide agricultural organizations have been established they have been invited to elect representatives to the Council; and with the change from a Board to a Commissioner of Agriculture that official was made a member of the Council. At the present time the Council consists of the President of the University, three members from the Board of Trustees, the Director and heads of the various departments of the Station, the Dean of the College of Agriculture, the Commissioner of Agriculture, and one representative each from the State Grange, the State Pomological Society, the State Dairymen's Association, the Maine Livestock Breeders' Association, and the Maine Seed Improvement Association.

The annual meeting of the Council is held at Orono, usually in the month of April. As occasion requires, other meetings may be held. In addition to the annual meeting, one meeting during the growing season is usually held at Highmoor Farm, and occasionally at Aroostook Farm. Prior to the annual meeting there is mailed to each member of the Council an outline of the "work completed, work to be continued" and "new work proposed." This makes about fifty typewritten pages and covers by title and brief outline all of the projects for the year. These are taken up topic by topic at the two days' meeting. Such of them as commend themselves to the Station Council, as well as suggestions from that body, are approved and the Director is instructed to carry them out in detail.

The Director is the executive officer of the Station and passes upon all matters of business. The members of the staff have charge of the lines of work which naturally come under their departments.

RELATION OF THE STATION TO THE UNIVERSITY

When the legislature accepted the Hatch grant, it made the Experiment Station a part of the University. As the University is a State institution, it (including the Experiment Station) is under the same inspection as other departments of the State.

In the organization of the University the agricultural instruction is given in the College of Agriculture and the work of research in agriculture is performed by the Experiment Station. The Station and the College are coordinating departments of the University and work in the fullest accord in fact as well as in theory.



HOLMES HALL.

EQUIPMENT OF THE STATION

The Station offices, laboratories and poultry plant are situated on the University campus. In addition it has two farms, Highmoor Farm in the western part of the State and Aroostook Farm in the northeastern part of the State.

The offices and most of the laboratories are in Holmes Hall. This is a two story brick building, with high, well lighted basement, erected for the use of the Station. The central portion was built in 1888. A part of the south wing was added in 1890, the north wing was added in 1904, the south wing was completed, and the vestibule entrance added in 1913. It is named for Dr. Ezekiel Holmes, of Winthrop, pioneer in scientific agricultural investigations, founder and first secretary of the State Board of Agriculture, founder of *The Maine Farmer* and its editor until his death in 1865, and most active in securing the establishment of the State College of Agriculture and Mechanic Arts as an independent institution.

On the ground floor are five large chemical laboratories used in the analysis of foods, feeding stuffs, fertilizers, and drugs; the laboratories of the entomologist, and the laboratory and office of the plant pathologist. The general office and mailing room, the Director's office, laboratories for seed testing and photography and the laboratories of the biologists are on the second floor. There are in the high, well-lighted basement, rooms for the gas machine, for the grinding and preparation of samples, laboratory for the calorimeter, culture and preparation rooms for the plant pathologists, a nitrogen laboratory, and rooms for the storage of chemicals and glassware.

The building is thoroughly equipped with apparatus for the work of agricultural investigation. An attached greenhouse is used by the entomologists and plant pathologists.

The poultry plant consists of incubator house, two-story head house with operating laboratories, and curtain front house capable of caring for about 1,000 hens. It has the usual equipment of incubators, brooders, brooder houses, etc.

Highmoor Farm was purchased by Act of the Legislature of 1909. Upon this farm it is the duty of the Station to "conduct scientific investigations in orcharding, corn and other farm crops." The farm is situated in the counties of Kennebec and Androscoggin, largely in the town of Monmouth. It is on the Farmington branch of the Maine Central Railroad, two miles from Leeds Junction. A flag station, "Highmoor," is on the farm.

The farm contains 225 acres, about 200 of which are in orchards, fields, and pastures. There are in the neighborhood of 3,000 apple trees upon the place which have been set from 20 to 30 years. Fields that are not in orchards are well adapted to experiments with corn, potatoes, and similar general farm crops. The house has two stories with a large wing, and contains about 15 rooms. It is well arranged for the Station offices and for the home of the farm superintendent. The barns are large, affording storage for hay and grain. The basement affords limited storage for apples, potatoes, and roots.

Aroostook Farm was purchased by Act of the Legislature of 1913 for scientific investigations in agriculture. It is under "the general supervision, management and control" of the Station. The farm is two

miles south of Presque Isle on the main road to Houlton. It is crossed by the Bangor and Aroostook Railroad and is served by a flag station of the same name as the farm. The farm contains about 275 acres, of which approximately one-half is cleared. The eight-room house provides an office and home for the superintendent of the farm. An unused school house, on a lot adjoining the farm, was deeded by the town to the State. This affords sleeping quarters for the farm help. The large barn affords storage for hay and grain. It has a large potato house in one end of the basement. There are stables for the horses in the other part of the basement. The Legislature of 1915 appropriated \$5,000 for each of the years 1915 and 1916 to meet the expenses of the investigations upon this farm.

The Station has quite an extensive collection illustrating the economic botany and entomology of the State. The Station library is housed in the University library building and contains over 3,500 volumes, chiefly agricultural and biological journals and publications of the various experiment stations and of the United States Department of Agriculture.

The Station is well equipped with apparatus that has to do with chemical, biological (including plant and animal breeding, insect studies and plant disease investigations) and agricultural and horticultural investigations. The farms are unusually well supplied with modern farm machinery.

INCOME OF THE STATION

The revenue of the Station prior to 1888 was \$5,000 per annum from the State, and fertilizer fees, the total income being something over \$6,000 a year.

At present the annual income of the Station is about

\$65,000. The income from the Hatch Fund is \$15,000; from the Adams Fund \$15,000; from the State for investigations in animal husbandry, for scientific studies of agriculture in Aroostook County, for printing and for analysis of commodities coming under the laws of which the Commissioner of Agriculture is the executive, about \$27,000. The income from miscellaneous sources, including sale of farm products, will average about \$8,000 annually.

THE OBJECT OF THE STATION

The purpose of the experiment stations is defined in the act of Congress establishing them as follows:

"It shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories."

The provisions of the Adams Act are somewhat more restricted as this fund is "to be applied only to paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States."

The investigations that are directed by the State to be conducted on the two farms are classed in the laws as scientific investigations.

In accepting the provisions of the act of Congress, the Maine Legislature withdrew the state appropriation for the maintenance of the Station, and thereby did away with the original purpose of the Station so far as it related to the "protection from frauds in commercial fertilizers, and from adulterations in foods, feeds and seeds." In place of this, from time to time special regulatory laws were passed of which the Director of the Station was made the executive. These accumulated in number and amount of labor involved until in 1913 the Director of the Station was charged by the law with the carrying out of the inspection of agricultural seeds, concentrated commercial feeding stuffs, commercial fertilizers, creamery glassware, drugs, foods, fungicides and insecticides. Out of the small beginning there developed an amount of executive police duties that detracted from the usefulness of the Station in its proper lines of activity, agricultural research. This was remedied by the Legislature of 1913 which, beginning with January 1, 1914, placed the purely executive parts of these laws with the State Commissioner of Agriculture. It is still the duty of the Station to assist the Commissioner by performing such analyses as are needed in the execution of these laws and giving him scientific assistance. This is paid by a special fund distinct from those received by the Station for work of investigation.

There is no question as to the wisdom, from the standpoint of the agricultural public, of the State in at first placing the administration of these laws, while still in an experimental stage, with the Station. There is also little question as to the wisdom of the action of the legislature in relieving the Station from these police duties after the laws had become well known and their execution had passed the experimental stage.

Under the law, then, both State and Federal, the chief function of the Station is research into the problems confronting the science and the art of agriculture.

PUBLICATIONS

From its beginning the Station has issued an annual report and bulletins covering its operations during the year. At present the Station issues four series of publications: Bulletins, Official Inspections, Miscellaneous Publications and Publicity Letters.

The results of the work of investigation are published in part in scientific journals at home and abroad, in United States Department of Agriculture publications, and in bulletins of the Station. All of the more important and immediately practical studies are published in the Station bulletins. The bulletins for a year form a volume of 300 to 400 pages and together make up the annual report. Bulletins are sent to the press of the State, to exchanges, libraries, and scientific workers. Bulletins which contain matter of immediate value to practical agriculture are sent free to residents of Maine whose names are on the permanent mailing list.

The results of the work of inspection are printed in pamphlet form and are termed Official Inspections. About twelve such pamphlets, aggregating 150 to 250

pages, are printed annually, and are bound as an appendix with the annual report. Official Inspections are sent to dealers within the State; those that have to do with fertilizers, feeding stuffs, and seeds are sent to farmers, and those reporting foods and drugs are sent to a list of several thousand women within the State.

The Miscellaneous Publications consist of newspaper bulletins, circulars, and similar fleeting publications. From twenty to thirty are published each year and are sent to different addresses according to the nature of the subject matter.

The Publicity Letters are issued in a very small edition sent to certain daily and weekly papers that agree to print the letters weekly. These have to do with immediate results of experiments, plans of work being taken up, and other ephemeral matter. They serve to keep the Station's constituency informed of its immediate activities. The more important of these letters are made the basis of longer and more permanent reports of progress.

Since its organization the Station has printed 30 annual reports, about 275 bulletins, 70 Official Inspections, about 500 Miscellaneous Publications and 200 Publicity Letters.

During the thirty years of the life of the Station it has been an active factor in the development of the agriculture of the State. There is nothing spectacular in the work of an agricultural experiment station. Its workers are not in the public eye. Hundreds of men are following practices derived from the investigations of the Station who are unaware that they are so doing. Agricultural progress has been, and always must be, of an evolutionary nature. The growth has been so steady

and the changes have come about so gradually that it is only by stopping long enough to make comparisons by decades that one becomes conscious of how great these changes are.

There has been such a working together for advancing Maine's agriculture that it is impracticable at all accurately to differentiate and give each agency its due credit. Without the teaching of the known facts, their paucity would not have been recognized. Without the coöperation of business men and the development of transportation lines, a marked increase in crops would have been disastrous. Without the results of research, the teaching that led to the development of the production, the transportation, and the sale of farm commodities could not have been possible. As no other industry in the United States, agriculture has utilized the results of the painstaking research of the laboratory. No one cause accounts for the wonderful development of the agriculture of the past half century, greater in the last twenty-five years than in as many centuries that preceded it. But the research of the Stations is the underlying first cause. Without this the development could not have come; and we are only at the beginning of what research will do for this, the most ancient of arts. In all of this wonderful growth of knowledge the Maine Station has been an important factor.

There is little space and this may not be the place to point out the results that have grown out of the work of this Station. A few illustrations must suffice.

It is not always possible to clearly separate the work of one of the experiment stations from another. The New England Stations have had yearly meetings of their directors for more than a quarter century. This

leads to a general coöperation that adds greatly to the effectiveness of the stations as a whole but does not clearly differentiate the sources of the results.

The development of Aroostook County's potato industry is perhaps the most wonderful thing in Maine's agriculture. Those familiar with the growth of this industry know that it rests primarily upon the showing by the Station that *Phytophthora* (late blight) can be controlled by sprays. The loss in some years from rot due to this fungus was disastrous. By preventing this, courage was given to the farmers of that section to take advantage of the favorable soil and climate and of the new railroad to quadruple their business. The work of the Station along the lines of poultry management and breeding, as is well known, has contributed more than any one other cause to the great development of the poultry industry in Maine. The widespread interest in these experiments is shown by the very large out-of-state demand for the poultry publications. Many thousand copies of two books priced at twenty-five cents each to non-residents have been sent all over the world. The country over, one finds Maine Station poultry buildings in use and its methods closely followed. In egg laying contests, the methods of feeding revised at the Maine Station have been used for the champion pens. The composition and the digestibility of foods for cattle and poultry upon which feeding rations are based were among the early things given to the State, as well as to the world, by the Maine Station. The selling of cream to creameries by butter fat instead of by the pound or measure is an outcome of the work of the Station. The sale of fertilizers, feeding stuffs, agricultural seeds, insecticides and fungicides by guaranteed analysis, freeing food of man from adulteration

and putting sanitary inspection over the production, manufacture and sale of milk and of other foods, and of drugs, found their inception and reasonableness in the work of the Station. The work, still in its infancy, at Highmoor Farm has brought home to the orchardist and the grain growers of the State some of the possibilities of increased and improved crops that come from following the methods there used and using the varieties and strains of seeds there developed.

It is probably true that the instruction of the college does not as yet utilize to the fullest measure the body of existing knowledge. It is also true that the extension departments have not as yet induced all the people to make useful application of all the knowledge that has been acquired; but, as was so clearly and almost painfully realized by the pioneers in agricultural instruction, the acquisition of knowledge must ever precede its application. Further real progress must come in the future, as it has so marvelously come in the near past, not so much from improved instruction in the schools, not so much from increase in extension teaching, not from demonstrations in the field—valuable and important as all these are—but from research in the Station laboratory.

STATION COUNCIL. 1885 TO DATE

PRESIDENTS

Z. A. Gilbert, 1885-1887.
Merritt C. Fernald, 1888-
1892.

Abram W. Harris, 1893-
1901.

George E. Fellows, 1902-1910.
Robert J. Aley, 1911—.

SECRETARIES

Samuel L. Boardman,
1885-1887.

Whitman H. Jordan,
1888-1896.

Charles D. Woods, 1896—.

MEMBERS

(Other than from Station and College)

Z. A. Gilbert, 1885-1888.	John A. Roberts, 1900-1911; 1913-1915.
Samuel L. Boardman, 1885-1887.	Eugene H. Libby, 1900—.
William Downes, 1885-1887.	Augustus W. Gilman, 1902-1911.
Rutillus Alden, 1888-1894; 1902-1914.	Albert J. Durgin, 1903-1907.
William H. Strickland, 1888-1890.	Charles L. Jones, 1903—.
Arthur L. Moore, 1889-1899.	Samuel W. Gould, 1907-1911.
B. Walker McKeen, 1889-1901.	Rinaldo L. Cummings, 1911.
D. H. Knowlton, 1889-1893.	Oscar R. Wish, 1911.
I. O. Winslow, 1889-1893.	John P. Buckley, 1911-1913.
Benjamin F. Briggs, 1893-1898.	Robert H. Gardiner, 1911-1913.
Ora O. Crosby, 1894-1896.	John M. Oak, 1912-1913.
Elliott Wood, 1895-1898.	William H. Davis, 1912-1913.
Charles S. Pope, 1895-1911.	William G. Hunton, 1912—.
Otis Meader, 1897-1899.	Freeland Jones, 1912 —.
Edward B. Winslow, 1899-1902.	William A. Martin, 1913—.
Voranus L. Coffin, 1899-1902.	Howard L. Keyser, 1913—.
	Leonard C. Holston, 1913—.
	William T. Guptill, 1915—.
	Frank S. Adams, 1915—.

DIRECTORS

Walter Balentine,* April 1-June 30, 1885.
Whitman H. Jordan, July 1, 1885-June 30, 1896.
Charles D. Woods, July 1, 1896—.

CHEMISTRY

James M. Bartlett, 1885—.	Henry B. Slade, 1896.
Lucius H. Merrill, 1886-1908.	Ora W. Knight, 1896-1902.
S. H. T. Hayes, 1891-1894.	Andrew J. Patten, 1897-1898.
Walter D. Jack, 1895.	Horace L. White, 1898.
Fred C. Moulton, 1895.	Edward R. Mansfield, 1899-1903.

*Acting Director.

Clifford D. Holley, 1900-1902.	Raymond P. Norton, 1910. Alfred K. Burke, 1910-1912.
Herman H. Hanson, 1902—.	Elmer R. Tobey, 1911—.
Sanford C. Dinsmore, 1903-1905.	Helen W. Averill, 1912-1913. Edward E. Sawyer, 1912—.
Lewis I. Nurenberg, 1905.	Albert Verrill, 1912.
Arthur C. Whittier, 1906-1908.	Harold P. Vannah, 1914.
Joanna C. Colcord, 1906-1909.	Hoyt D. Lucas, 1914-1915.
Joseph F. Merrill, 1909.	Emery J. Theriault, 1915.
Albert G. Durgin, 1909-1912.	Walter H. Rogers, 1915—.

AGRICULTURE

Gilbert M. Gowell, 1885-1887; 1896-1907.
Walter Balentine, 1889; 1893.

FARM SUPERINTENDENTS

Lucius J. Shepard,* 1899-1901.
Wellington Sinclair, Highmoor Farm, 1909—.
Guy A. Baker, Aroostook Farm, 1914—.

ENTOMOLOGY

Francis L. Harvey, 1888-1899.	Herbert W. Britcher, 1901-1903.
Fred P. Briggs, 1888-1893.	Edith M. Patch, 1904—.
Gilman A. Drew, 1900-1903.	Oscar A. Johannsen, 1909-1912.

VETERINARY SCIENCE AND BACTERIOLOGY

Fremont L. Russell, 1888-1909.

HORTICULTURE

Welton M. Munson, 1891-1907.	Marshall B. Cummings, 1902-1904.
Leo B. Plummer, 1891.	Walter W. Bonns, 1909-1912.
Harris P. Gould, 1892-1896.	George A. Yeaton, 1912.
Lucius J. Shepard, 1896-1899.	Perley Spaulding, 1901.

*While college farm was under Station management.

SEED ANALYSIS AND PHOTOGRAPHY

Bessie G. Tower, 1905. Royden L. Hammond, 1906—.

PLANT PATHOLOGY

Warner J. Morse, 1906—. Michael Shapovalov, 1912—.
Charles E. Lewis, 1908-1913.

BIOLOGY

Raymond Pearl, 1907—.	John Rice Miner, 1913—.
Frank M. Surface,	John W. Gowen, 1914-1915.
1907-1911; 1913—.	Jacob Zinn, 1914—.
Maynie R. Curtis, 1908—.	Walter E. Curtis, 1914—.
Eugene P. Humbert, 1911.	C. Harry White, 1915—.
Clarence W. Barber,	Walter Anderson, Poultryman,
1912-1914.	1905-1913.
Harold G. Gulliver,	
1913-1914.	

STENOGRAPHERS AND CLERKS

Mrs. Jennie Hamlin Waite,	Lottie E. McPheters, 1908-
1888-1897.	1911.
Mary W. Hutchinson, 1897-	Harry M. Woods, 1909-1910.
1901.	Gem M. Coombs, 1911—.
Annie M. Snow, 1901-1909.	Hazel F. Mariner, 1913—.
Blanche F. Pooler, 1906—.	Janie L. Fayle, 1913—.
	Ella M. McKenzie, 1915—.

LABORATORY ASSISTANTS, ETC.

E. T. Bond, 1886-1887.	Frank D. Sterry, 1907-1909.
A. T. Jordan, 1888-1890.	Alice W. Averill, 1908—.
S. H. T. Hayes, 1891-1893.	John Summers, 1909-1911.
Harry McLean, 1894-1895.	Harry Alexander, 1910—.
Walter Jack, 1895-1896.	Charles C. Inman, 1911—.
B. R. Mosher, 1896-1899.	Vernon Folsom, 1911-1915.
Henry A. Millett, 1900-1911.	Donald S. Clark, 1915—.

CHAPTER XV

THE COLLEGE OF ARTS AND SCIENCES

DEAN JAMES STACY STEVENS

THE University of Maine has from the beginning of its existence placed strong emphasis upon those subjects of study which are of a general character in connection with the subjects which are of a more technical nature. Students in Agriculture, Chemistry, and Engineering have always registered for a liberal amount of work in English, modern languages, and social sciences. Quite early in the history of the College there was a distinct curriculum established which included the more liberal subjects and which was coordinate with the curricula in agriculture and engineering. This was known as the curriculum in science and literature. For many years Professor Allen E. Rogers was the man who chiefly interested himself in this part of the College, and who acted as adviser to such students as enrolled in these courses. In the year 1899 the University was formally divided for administrative purposes into four coordinate colleges and the Maine Agricultural Experiment Station. The College of Arts and Sciences was the name given to that division of the University which corresponded to the New England classical college.

Courses in Latin were introduced under the administration of President Harris. Mr. Guy A. Andrews was the first instructor in this subject, and Mr. Wallace S. Elden succeeded him as assistant professor of Latin



JAMES STACY STEVENS

and French. The full professorships of Latin and Greek were established in 1898, and were filled by Professors Karl P. Harrington and John H. Huddleston. At first there were three degrees conferred: Bachelor of Arts upon students who pursued both Latin and Greek, Bachelor of Philosophy upon students who pursued either Latin or Greek, and Bachelor of Science upon those who pursued neither subject. After many serious discussions in meetings of the faculty it was voted to give but one degree—the degree of Bachelor of Arts—in the College of Arts and Sciences, and to require neither of the classical languages for this degree. Following the analogy of many of the best western State universities a curriculum was arranged which required a student to spend a certain amount of time in mathematics and sciences, in English, in modern languages, and in social sciences, while military drill and physical training were insisted upon as university requirements.

The growth of the college may be illustrated by the following statistics. It should be stated that in making up the faculty list a member of the faculty is recognized as belonging to the college in which his major subject lies.

Year	Number of Students	Faculty
1905-06	...	34
1906-07	127	35
1907-08	180	42
1908-09	175	46
1909-10	184	45
1910-11	195	46
1911-12	196	44
1912-13	187	42
1913-14	216	41
1914-15	309	47
1915-16	343	48

The growth may be illustrated in another way. In 1907-08 there were 221 courses offered and in 1915-16 the number was increased to 349. From every point of view the growth of the college has been a conservative one. The membership of the faculty has always been large on account of the fact that many of the general courses offered have been required of students in the Colleges of Agriculture and Technology.

At present this college comprises seventeen departments. A list of these departments with the number of courses offered in each is given below. The courses are not standardized, and hence a course may imply one or more hours up to five hours a week for a semester.

Art	6	Greek	12
Astronomy	7	History	19
Bibliography	1	Latin	23
Biology	28	Mathematics	23
Economics and Sociology	32	Philosophy	17
Education	17	Physics	26
English	58	Public Speaking	8
French	20	Spanish and Italian	12
German	40		

As at present organized the College of Arts and Sciences aims to meet the needs of three classes of students:

(1) Men and women who desire to pursue a cultural curriculum.

(2) Men and women who desire to enter professional schools which require a collegiate degree.

(3) Men and women who wish to fit themselves for teaching in secondary schools or for school superintendencies.

While it is unfortunate that this college does not

possess a separate building in which its various departments may be housed, distinct gains have been made in recent years by providing the departments with rooms and offices which are centrally located. The department of Biology occupies the whole of Coburn Hall with the exception of three rooms which are used by the departments of History and Economics and Sociology. The Modern Language departments, including French, German, Spanish, and Italian, are provided for in Fernald Hall. English and Public Speaking occupy a wooden building named in honor of Professor H. M. Estabrooke, for a long time head of the department of English. The department of Mathematics has four attractive rooms in Alumni and Fernald Halls. Latin and Philosophy are quartered in Wingate Hall. The courses in Art and Greek and Classical Archeology are given in the Library. The department of Education is in Fernald Hall. Physics is provided for in the south wing of Aubert Hall.

This college has always concerned itself with the development of the University along the lines of general culture and has inaugurated several lines of work which have proved attractive and helpful to the student body.

General Lecture Course. In 1905 a course of general lectures was established under the auspices of the departments of Physics, Chemistry, and Biology. Five lectures each were given by the heads of these departments on subjects of popular interest. From that time the course has been continued by the various departments of the college. These lectures are given Wednesday afternoons at 4:30, and are usually well attended. In many cases professors from the other Maine colleges and other gentlemen whose work is connected with the

subjects under consideration have assisted in these courses. For the present semester (spring, 1916) a course is conducted by the department of Biology in which 80 students are registered, and the topics are grouped around the subject of Civic Biology.

Arts Club. This is an organization which includes the members of the faculty of the college and their wives. The Club meets once a month and listens to a paper prepared by one of the members and this is followed by a social hour.

Teachers' Registration Bureau. Chiefly through the initiative of Professor A. J. Jones this college has established a Teachers' Registration Bureau. It is modeled after similar bureaus in several other institutions and is designed to be of assistance to undergraduates and alumni in finding teaching positions. It has already proved of great value to the University and its advantages will doubtless be more and more obvious.

Social Interests. A recent important development in this college has been the increased interest in social affairs, which has led to the holding of several informal assemblies where the faculty and students have met together for better acquaintance. In addition to these assemblies, lectures, plays, and other instructive and entertaining features have been presented. This year it is proposed to give a Latin play which has been translated by the members of one of the classes in that department. The social affairs of the college are in the hands of "The Committee of Twenty-One," which is made up of representatives from the various classes.

Scholarship. Recent action taken by the faculty of the college demands that a student shall receive grades of C or above in three-fourths of his work. This rule has proved to be very satisfactory. So far every student

who has come up for graduation has met its requirements.

Curriculum in Journalism. Two years ago courses in journalism were established in connection with the department of English, which aim to prepare students for practical newspaper work. It is hoped that it will increasingly meet the needs of our students who are planning to take up newspaper work as a life business.

Education. This department has been established for some years and recently it has developed a considerable growth. There are quite a number of students who are doing their major work in Education and many graduates from this department are found teaching in schools in Maine as well as out of the State. Recent action taken in connection with the Department of Public Instruction permits students who are graduates of a high school and of a normal school and who had a year's successful teaching experience to register with junior standing as candidates for the degree of Bachelor of Pedagogy. Although this has been established but a short time several students have availed themselves of this opportunity, and there is every indication that it will meet the needs of an increasing number of Maine teachers.

Summer Term. The Summer Term of the University has always been a part of the College of Arts and Sciences and has been in existence under its present organization for about ten years. The number of students has averaged about 125 in recent years and this session of the University has proved especially attractive to teachers who wish to spend a little time reviewing their work. There have also been registered a number of college graduates, some of whom have taken this opportunity to do work for their master's

degree. Courses in the Summer Term are open also to university students who wish to gain credit in advance of their work or to make up work in which they are in arrears.

Graduate Work. The University has for several years offered courses leading to the master's degree. It is only recently, however, that this has become an important division of the University. While graduate students may register in any college of the University, it is natural that the courses in the College of Arts and Sciences should attract the largest number. The present catalog shows a registration of 46 graduate students of which 31 are in this college. Our requirements for the graduate degree demand that no non-resident work shall be counted and that a degree shall be conferred only upon the completion of one year's work of unusually high grade.

It is of considerable advantage to the College of Arts and Sciences that it is a part of a University which contains three coordinate colleges. It is quite common for students in this college to elect courses in Agriculture and Technology and arrangements have been made by which a student may enter the College of Law at the end of his junior year and obtain the degree of Bachelor of Arts when he has completed the first year's work in that college. It is a possible disadvantage that this college is associated with technical colleges which demand the completion of 150 hours for graduation. The 125 hours demanded in arts and sciences constitute, however, the normal requirement for a collegiate degree. The insistence, moreover, that its students shall maintain a grade of C or above in three-fourths of their work in order to fulfill the conditions for graduation may be regarded as constituting an offset to the extra hours required in the other colleges.

It is a noteworthy fact that the various departments in this college have been held by relatively few men. In the early days Professors Charles H. Fernald and Allen E. Rogers were prominent members of the faculty. Professor C. H. Fernald had the chair of Natural History and President Fernald and Professor Rogers taught a wide variety of subjects. Since the organization of the University into colleges, the department of Biology has had for its heads Professor Gilman A. Drew, who is now assistant director of the Biological Experiment Station at Woods Hole, Massachusetts, and Professor Mintin A. Chrysler, the present incumbent. In charge of the department of Philosophy have been Dr. Merritt C. Fernald and Professor Wallace Craig. In the department of Economics and Sociology have been Professor Robert J. Sprague, now at the Massachusetts Agricultural College, and Professor George W. Stephens; in Education, Professor Charles Davidson who has retired from teaching, and Professor Arthur J. Jones who is now at the University of Pennsylvania, and Professor Roy F. Richardson; in English, Professor Horace M. Estabrooke, who died in 1908 and Professor Roland P. Gray. In the department of French Professor Jacob B. Segall has been the head since the organization of the college. In German we have had Professor Joseph W. Carr who died in 1909, and Professor Garrett W. Thompson. Professor John H. Huddilston has been the only head of the department of Greek and Classical Archeology, and Professor Caroline Colvin has been the head of the department of History since the organization of the college. In Latin, Mathematics, Physics, Public Speaking, and Spanish and Italian, Professors Chase, Hart, Stevens, Daggett, and Raggio have been the only department heads since the college was organized.

The establishment of a college of liberal arts in connection with our State University has been a problem presenting serious difficulties in the past. At present it seems to be well established and meeting the needs of an increasing number of young men and women each year.



HAROLD SHERBURNE BOARDMAN

CHAPTER XVI

COLLEGE OF TECHNOLOGY

DEAN HAROLD SHERBURNE BOARDMAN

THIS College includes the departments of Chemistry, Civil Engineering, Electrical Engineering, Mechanical Engineering, and Pharmacy.

Of the four curricula arranged before the graduation of the first class, one was in Civil Engineering. Mechanical Engineering was added in 1873, Chemistry in 1874, Electrical Engineering in 1894, and Chemical Engineering in 1905. Pharmacy, although maintained since 1894, was not made a part of this College until 1911. For purposes of catalog organization, the engineering curricula appeared in the catalogs from 1899 to 1902 inclusive under the head of College of Engineering. In the next catalog, this was changed to the College of Technology, and included, in addition to the engineering curricula, the curriculum in chemistry. A mining engineering curriculum was contemplated and cataloged for a few years, in order to receive the benefits of a bill, which was then before Congress, should it finally become a law. It, however, failed and the curriculum in mining engineering disappeared. Meetings of the engineering and chemical faculties were begun in 1907 for a discussion of matters of general interest; this body was, however, without any specific powers until 1910 when the College of Technology was formally organized and a dean appointed.

At the time of the organization of the institution,

engineering as a profession was comparatively young and was struggling for recognition. In its transition from a trade to a profession, the curriculum offered in most institutions was a narrow one, and principally along mathematical lines.

With the development of modern education, great changes have taken place so that today an engineering curriculum, although dealing largely with applied science, is expected to contain a considerable proportion of history, economics, English and modern languages, with a further opportunity to elect other subjects which tend towards a liberal education.

The rapid advance in science has given new and broader opportunities for the engineer. Electrical and chemical engineering were unknown until within a comparatively few years. Civil engineering has now many branches, such as hydraulic, sanitary, municipal, highway, railroad and structural engineering. Electrical engineering may be divided into telephone, railway and illumination engineering, in addition to transmission and power plants, and wireless telegraphy. Mechanical Engineering includes marine, gas power and steam engineering, as well as heating and ventilation.

The tendency of the times is to specialize in engineering the same as in medicine. This development, together with the increase in the number of students has demanded new instructors, some of whom must be specialists, together with a large amount of additional equipment. It has not been possible to supply either of the above demands to fully meet the needs, but much progress has been made.

The Pharmacy department was established with a view to providing an opportunity for young men and

women to prepare themselves to meet all the exigencies of the rising ethical and social standards of the profession. It early assumed the role of final arbiter on all questions involving professional technicalities and has been largely responsible for the high standard of scholastic excellence observed and enjoyed by the pharmacists of the State. To meet the imperative demands of constant industrial and professional development, new courses have been added from time to time, and its present curriculum conforms to the highest educational and scientific standards.

A striking difference between the methods used in technological education at the present time compared with those in use a comparatively short time ago is the increase in the use of laboratory equipment. Not many years ago, a laboratory called to one's mind vivid impressions of the chemist, and although the chemical laboratory has greatly increased in efficiency and value, laboratories in the other applied sciences have come to be exceedingly useful.

For many years, the building formerly known as the Chemical Laboratory, and now known as Fernald Hall, housed the department of Chemistry. This building became unsuited to the more modern needs and, in 1915, the department moved into its new quarters in Aubert Hall. One of the interesting features of the new building is the large lecture room which is two floors in height, having elevated seats and accommodating 270 students. This allows the freshmen to be assembled together and avoids duplicating divisions. Another feature which is worthy of note is the pulp and paper laboratories which are the pioneers of the country. These laboratories contain experimental beaters, a sulfite digester holding 400 pounds of pulp, a Barker

acid system 32 feet high, a soda pulp and rag digester, a full size two-plate screen, a Vesuvius sulphur burner for making sulfite acid, and paper testing instruments for testing strength, stretch, thickness, etc. The entire process of paper making is carried out and studied in these laboratories.

In Civil Engineering, a laboratory for the purpose of investigating cement has been in use for a number of years. This laboratory is very well equipped, and regular courses are given to the students in engineering. There is also a road materials testing laboratory which has been equipped by the University and State Highway Commission and is as complete as any in the country.

The electrical laboratory has had equipment added from year to year. A synchronous motor substation with alternating and direct current machines and slate switchboards have greatly increased the value of the laboratory courses and the addition of a 100 kw. 250,000 volt transformer makes possible the study of high tension phenomena which occur in the long distance transmission of electrical power in this country.

The laboratory equipment in Mechanical Engineering has been much increased during the past few years. There are available for test work, the five boilers and auxiliaries of the heating plant, together with two independent boilers which can be connected with the laboratory to supply steam. A small steam turbine set and rotary pump and a new gasoline engine have recently been added. It is planned to make further extensions in the near future.

In order to carry out the original purpose of the Morrill Act, Land Grant College ideals of organization are coming to include three great lines. First—

Professional engineering education, to train the leaders. Second—Engineering extension work, to take some technical education to the workmen; to assist the development of mechanic arts and to carry technical information to the public. Third—Engineering Experiment Stations, to solve the technical problems of the State.

We have from the beginning trained the engineering students who have come to us, and that we have been successful can be shown by a study of our alumni and their activities. It is only recently that the subjects of engineering experiment stations and engineering extension work have received serious consideration, chiefly perhaps, for lack of time and funds with which to work.

In June, 1915, the Trustees established a Technological Experiment Station whose object is to carry on practical research in engineering subjects, make investigations for State boards and municipal authorities, furnish scientific information to the industries of the State, and distribute accurate, scientific knowledge to the people of the State. The different departments have been carrying on, in a small way, most of these objects for several years, and there is every reason to believe that with proper funds, an engineering experiment station can be of as great service to the manufacturing industries of the State as the Agricultural Experiment Station has been to the agricultural industries.

For several years, members of the technological faculty have been conducting night classes and lectures in several towns of the State. This has been done without fee or reward and by the instructors on their own time. In June, 1915, a small fund was appropriated by the Trustees to carry on this work, and during the following college year, classes were held in Lewiston,

Augusta, and Waterville. The local teaching was carried on partly by alumni, supervised by members of the faculty. It is expected that this line of work will be developed and extended to all parts of the State, thereby giving the industrial classes a chance to obtain that which it would be impossible, in the majority of cases, for them to come to the University after.

Much coöperation is being extended between the State commissions and departments of the University. The State Highway Commission, in 1913, established its road materials testing laboratory at the University, in charge of the department of Civil Engineering, where all of its testing work is being done. Enough material is received to keep one or two men busy all the time. The head of the department of Civil Engineering is consulting engineer on bridges to the Chief Engineer of the State Highway Commission and much is being done to improve the highway bridge conditions of the State.

The new Public Utilities Commission has been asking our assistance ever since its creation, and all the departments of engineering have done considerable consulting work for them.

Three efforts have been made in the last twenty years to establish a Bureau which should assist Maine graduates in technology in obtaining positions. The first failed owing to lack of interest. The second was fairly helpful, and the third has been more or less successful. Under the name of the University of Maine Employment Bureau, five branches have been established as follows: New York, Boston, Washington, Pittsburg and Chicago. Orono is the headquarters of the Bureau and acts as a clearing house for all the branches, supplying them with data relating to the alumni and other information. Each branch is made



ALFRED BELLAMY AUBERT

up of alumni members representing the different curricula of the college. It is the plan to send monthly to each member of each branch a list of men who have signified their intentions of being immediately available for a change of position. This is called a "live list" and in order to keep his name thereon, an applicant must keep in touch with the Dean of the College. It is not the purpose of a branch to recommend men to possible employers but to bring to the attention of the applicants openings which occur. The success of this movement depends upon the interest taken in it by each member of each branch and by the support given by the alumni. Already much has been done, but to be entirely successful much more remains to be accomplished.

In March, 1911, the National Honorary Engineering Society of Tau Beta Pi established a chapter at Maine. Regular meetings are held and much interest is being shown in the work of the Society by the students and faculty.

It is interesting to note the changes which have occurred in heads of departments of this college. Mr. Stephen F. Peckham, A. M., of Brown University was the first professor of Chemistry, his term of service being from 1869-71. He was succeeded by Robert L. Packard, C. F. Stone, and W. O. Atwater during 1871-73. Prof. A. B. Aubert, Cornell '73, came in 1874 and was head of the department until the fall of 1909 when by resignation he gave up his duties to Ralph H. McKee, Wooster, '95, Chicago, '02, who is the present head of this department.

In Civil Engineering, William A. Pike, Massachusetts Institute of Technology, was head of the department from 1871-80, when George H. Hamlin,

Maine '73, succeeded him, his term of office being until 1898. Nathan C. Grover, Maine '90, M. I. T. '96, was appointed and served until 1903 when the present head, Harold S. Boardman, Maine '95, M. I. T. '96, was appointed.

Mechanical Engineering was in charge of Professor W. A. Pike until 1881, when Chas. H. Benjamin was appointed head of this department and served until 1887. Walter Flint, Maine '82, succeeded him, serving until 1902. Perley F Walker, Maine '96, was then appointed and served until 1905. Arthur C. Jewett, M. I. T. '01, succeeded him and served until 1915, when the present head, William J. Sweetser, M. I. T. '01, was appointed.

The Electrical Engineering department was for the first five years under the direction of the head of the department of Physics. In 1899, H. S. Webb, Maine '88, was made head of the department and at his death in 1905, Walter K. Ganong, Worcester '00, succeeded him and remained head of the department until 1912 when William E. Barrows, Maine '02, the present head, was appointed.

In Pharmacy, Wilbur F. Jackman was appointed instructor in charge of the department in 1895, soon after it was created. He was Professor of Pharmacy from 1901-13, when he resigned to go elsewhere. William A. Jarrett, Massachusetts College of Pharmacy '13, succeeded him.

In 1904, a new department known as the department of Mechanics and Drawing was created, and Charles P. Weston, Maine '96, Columbia '04, was placed in charge.

Following is a summary of the present teaching force of the college:

	Chem.	Civil Engr.	Elec. Engr.	Mech. Engr.	Mechan- ics & Draw.	Phar.	Total
Professors	1	2	1	1	1	1	7
Associate professors.....	1	2	1	1	1		6
Assistant professors	3	1					4
Instructors	4	2	2	4	2	1	15
Total	9	7	4	6	4	2	32

Following is a table of number of students registered since 1895 in the courses which now make up the College of Technology:

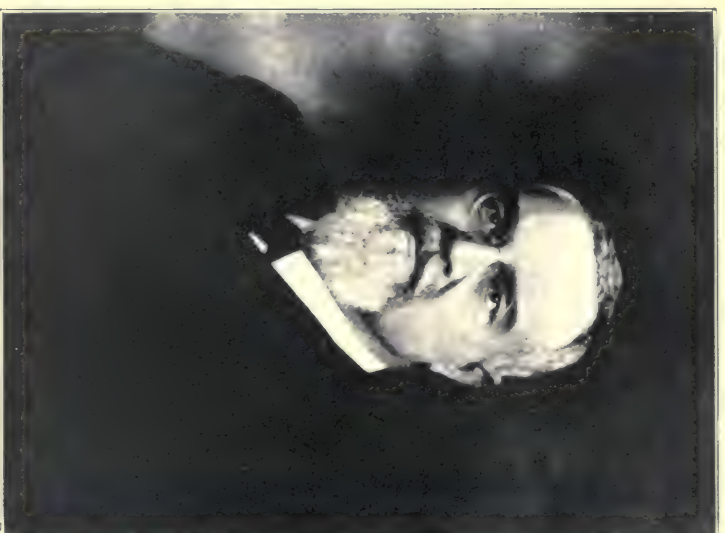
Year	Chem.	Civil Engr.	Elec. Engr.	Mech. Engr.	Chem. Engr.	Phar.	Total
1895	15	59	53	47		19	193
1896	21	59	80	53		29	242
1897	19	64	77	61		19	240
1898	17	62	86	41		12	218
1899	18	75	82	38		21	264
1900	16	82	73	33		18	222
1901	18	102	86	35		22	263
1902	20	119	93	34		28	294
1903	22	138	107	52		20	339
1904	22	140	104	44		14	324
1905	18	136	112	53		14	335
1906	20	144	125	54		19	362
1907	19	149	120	56		22	366
1908	25	159	122	54	9	24	393
1909	19	147	121	56	8	21	372
1910	25	137	106	46	8	18	338
1911	28	101	96	40	8	19	392
1912	34	112	93	41	29	28	337
1913	47	108	93	56	48	19	375
1914	51	104	96	59	75	28	413
1915	56	77	115	85	82	19	434

The following is the geographical distribution of graduates in engineering:

State or Country	No.	Per Cent	State or Country	No.	Per Cent
Alabama	1	..	New Hampshire..	22	1.9+
Alaska	1	..	New Jersey	31	2.8
Arizona	4	..	New York	121	10.9
Arkansas	1	..	No. Carolina.....	1	..
California	32	2.9	No. Dakota.....	6	..
Colorado	5	..	Ohio	30	2.7
Connecticut	26	2.3+	Oklahoma	3	..
Delaware	2	..	Oregon	7	..
Dist. of Columbia.	16	1.4+	Pennsylvania	75	6.8
Florida	9	..	Rhode Island	14	1.2
Georgia	4	..	So. Dakota	1	..
Idaho	8	..	Tennessee	2	..
Illinois	37	3.3+	Texas	7	..
Indiana	5	..	Utah	2	..
Iowa	4	..	Vermont	6	..
Kansas	3	..	Virginia	9	..
Kentucky	5	..	Washington	10	..
Louisiana	3	..	W. Virginia	2	..
Maine	246	22.3	Wisconsin	10	..
Maryland	3	..	Hawaii	2	..
Massachusetts	228	20.7	Porto Rico	3	..
Michigan	12	1.0	Canada	30	2.8
Minnesota	11	1.0	Cuba	2	..
Mississippi	9	..	Newfoundland ...	2	..
Montana	16	1.4+	So. America.....	5	..
Nebraska	4	..			
Nevada	4	..	Total	1101	



GEORGE ENOS GARDNER



WILLIAM EMANUEL WALZ

CHAPTER XVII

COLLEGE OF LAW

IN an earlier chapter, reference has been made to the introduction of a department of Law in the University. The writer believes that a correct interpretation of the organic act of 1862 would have allowed the establishment of a School of Law as a department of this institution under its former name of the Maine State College of Agriculture and the Mechanic Arts. Under its new name, however, no question could well arise as to the propriety of introducing the Law School as a department of the University. The only question, at its inception, was that of expediency, or, in other words, whether the demand for such a school in the State and its promise of usefulness would justify its establishment. The trustees having settled this question in the affirmative, they arranged, as previously stated, to open the School of Law at Bangor on October 5, 1898.

At the beginning, the school occupied four rooms on the third floor of the Exchange Building at the corner of State and Exchange Streets, Bangor. One room was used as an office, one as a library and reading room, and two were used as lecture rooms. The school was under the immediate control of an advisory board made up of prominent lawyers of the State. The personnel of the faculty and of the advisory board is herewith given.

FACULTY OF THE LAW SCHOOL

Abram Winegardner Harris, Sc. D., President of the University.

George Enos Gardner, M. A., Professor of Law and Dean.

Allen Ellington Rogers, M. A., Professor of Constitutional Law.

Charles Hamlin, M. A., Lecturer on Insolvency and Probate Practice and the Statutes of Maine.

Lucilius Alonzo Emery, M. A., LL. D., Lecturer on Roman Law.

Andrew Peters Wiswell, B. A., Lecturer on Evidence.

Ralph Kneeland Jones, B. S., Librarian.

Robert Harper Murray, B. A., LL. M., Instructor in Law.

Forest John Martin, LL. B., Lecturer on Pleading and Maine Practice.

Louis Carver Southard, M. S., Lecturer on Medico-Legal Relations.

Hugo Clark, C. E., Lecturer on Equity Pleading.

ADVISORY BOARD

Hon. Henry B. Cleaves, Portland.

Hon. William H. Fogler, Rockland.

Hon. Charles Hamlin, Bangor.

Hon. Herbert M. Heath, Augusta.

Hon. Andrew P. Wiswell, Ellsworth.

At the opening of the school, the course of study was arranged to run through two years, but with the understanding that it would be extended to three years when the State requirements for admission to the bar should be similarly increased. This change in the State requirement was made in 1899, a change heartily desired by the law school faculty as well as by the best elements of the legal profession in the State, and accordingly, the course of study was immediately extended to three years.

The number of students registered at the opening of the first term was twenty-six, which number, in the second year, was increased to forty-two. Thus a very encouraging beginning had been made at the Law School.

At the Commencement in June 1899, three young men received the degree of Bachelor of Laws. When the report for the year 1899 was written, several students had passed successfully the examination for admission to the Maine bar.

The only change in the law faculty in the year 1899 was in the appointment of William Emanuel Walz, M. A., LL. B. to succeed Robert Harper Murray, LL. B. who had resigned to enter upon the practice of his profession.

The report of the University for the year 1900 expresses satisfaction in the work of the Law School in the following language: "The School of Law is winning golden opinions from every quarter because of the ability of its instructors and the quality of its work." Again in 1901, Dr. Harris thus reports: "The School of Law maintains its success." * * * "The number of students for 1900-1901 was thirty-seven; for 1901-1902, it is forty-seven. The library has been largely increased during the year. The gain in number of students, though not large, is encouraging; but the most noteworthy fact is the excellence of the work done by the school, which is now becoming evident, and is being better appreciated by the public. The graduates have maintained an enviable standing in their examinations for admission to the bar."

Among the changes in the University in 1902, the following change relating to the Law School was thus referred to by Hon. Henry Lord, President of the

Board of Trustees: "Dean George E. Gardner of the School of Law resigned in March to accept a more attractive and lucrative position at Boston University. Under Dean Gardner, the School of Law was organized and to his rare ability its high reputation and success are largely due. It is believed that a worthy successor to Dean Gardner has been found in Acting Dean William E. Walz, who is ably conducting the affairs of this department of the University." A short time after, Acting Dean Walz was made Dean of the School of Law.

In 1903, President Fellows thus refers to attendance upon this department of the University: "The percentage of increase in the number of students is greater in the Law School than in the other departments for the past two years. The total number of students in attendance in the year 1901-1902 at the Law School was 47; in the year 1902-1903, the number was 66. The number in attendance to November, 1903 is 71."

Now that five years from 1898 to 1903 had gone by since the establishment of the Law School, its methods of training for the legal profession had been carefully thought out and tested by a brief experience. They are herewith given as published in the catalogue of 1903.

"METHODS OF INSTRUCTION

"The College of Law is not committed exclusively to any one method of instruction, and recognizes the great value of lectures by able men, and the profit to be found in the use of standard text-books, but the greatest stress is placed upon the study of selected cases, and most of the work is carried on in this way. It is believed that through the case the student can best come to the con-

trolling principles of the law, and that in no other way can he get so vital a comprehension of them. 'Through the case of the principle' may perhaps adequately indicate the standpoint of the school in the matter of method.

"Particular stress is placed upon the Practice Court, which is held once a week as a part of the work of the College, and in which every student is required to appear regularly. The questions of law are in all instances made to arise from the pleadings prepared by the students, and briefs, summarizing the points involved and the authorities cited, are submitted to the presiding judge. The aim and spirit of the College are eminently practical, the purpose being to equip men for the everyday duties of the practicing attorney." That these methods are sound and have worked satisfactorily in practice is evidenced by the fact that they have been published and followed year by year from 1898 to 1915, or through all the history of the college.

During the five years of its history which have been especially under notice, the changes in the faculty of instruction were such as to justify the giving of the list of these officers as they appeared in the catalogue of 1903, even at the expense of the repetition of several names.

COLLEGE OF LAW

FACULTY, 1903

George Emory Fellows, Ph. D., L. H. D., LL. D.,
President of the University.

William Emanuel Walz, M. A., LL. B., Dean, and
Professor of Law.

Allen Ellington Rogers, M. A., Professor of Constitutional Law.

Ernest Gustavus Lorensen, Ph. B., LL. B., J. U. D.,
Professor of Law.

Edgar Myrick Simpson, B. A., Instructor in Real Property and Corporations.

Eugene Clement Donworth, LL. B., Instructor in Contracts.

Bertram Leigh Fletcher, LL. B., Instructor in Agency.

George Henry Worster, Instructor in Insurance.

Forest John Martin, LL. B., Resident Lecturer on Common Law Pleading and Maine Practice.

Hugo Clark, C. E., Resident Lecturer on Equity Pleading and Practice.

Charles Hamlin, M. A., Lecturer on Bankruptcy and Federal Procedure.

Lucilius Alonzo Emery, LL. D., Lecturer on Roman Law and Probate Law.

Andrew Peters Wiswell, LL. D., Lecturer on Evidence.

Louis Carver Southard, M. S., Lecturer on Medico-Legal Relations.

Charles Vey Holman, LL. B., Lecturer on Wills and Mining Law.

Ralph Kneeland Jones, B. S., Librarian.

It will be understood that but few of these men devoted all their time to the College of Law, and that most of them rendered important service to this college in addition to other and exacting duties.

Having thus given in brief outline the history of the College of Law for the first five years, enabling the reader to catch something of its spirit and emphasis, it may be possible to continue its history for the next twelve years, or to 1915, not in definite detail, but from the standpoint of one who looks back to note progress, to make record of the more important events and so to bring into relief the essential facts and what has really been accomplished.

With this thought in mind, the writer presents at once the record of attendance of students upon the Col-

lege of Law, as given in successive catalogues and results also so far as expressed in successive graduations.

In explanation of the first of the two following tables, it should be stated that on the opening of the College of Law under the two-year course of study, the classes were recognized as senior and junior, but when two years later, the course of study was extended to three years, they were recognized as seniors, juniors, and first-year men as the table indicates. It should also be explained that prior to 1914, graduate students could carry on study at the College of Law *in absentia*. The present requirement is that work for the Master's degree must be done in residence.

TABLE OF STUDENTS

Year	Graduate Students	Seniors	Juniors	First Year Men	Specials	Total	Graduates	Non Graduates	Total
1898-9		5	20		5	30			
1899-00		25	16		1	42	3	1	4
1900-1		7	8	21	1	37	26	6	32
1901-2		14	13	19	1	47	4	1	5
1902-3	10	14	11	26	5	66	14	6	20
1903-4	18	12	16	19	6	71	13	8	21
1904-5	19	21	16	19	6	81	14	6	20
1905-6	26	21	13	16	5	81	19	13	32
1906-7	31	14	17	23	5	90	18	9	27
1907-8	33	18	19	22	5	97	10	9	19
1908-9	37	24	16	26	12	115	15	8	23
1909-10	28	23	16	25	9	101	17	14	31
1910-11	28	20	17	22	16	103	16	17	33
1911-12	28	17	17	28	18	108	20	15	35
1912-13	29	22	24	20	19	114	15	16	31
1913-14	23	26	17	27	18	111	18	19	37
1914-15	2	15	21	27	27	92	21	22	43
1915-16	1	21	23	25	30	100	14	18	32
Total							257	188	445

From the foregoing table of graduates and non-graduates, it appears, as stated also in Chapter X, that of the 445 law students, 257 or 57.8% received diplo-

mas, and that 188 or 42.2% did not graduate. The ratio between these two groups is practically 4 to 3, or in other words, for every four graduates from the College of Law, there have been three non-graduates.

For the ratios which obtain in other groups of students in the University, reference is made to the last part of Chapter X, where this subject of ratios between graduates and non-graduates is more fully treated.

From 1898 to 1905, the department of the University now under consideration was recognized as the School of Law, but in 1905, the name was changed to the College of Law, thus bringing it into accord, so far as the name was involved, with the other departments of the University.

Among changes of importance, one affecting the accommodations for the College of Law was made in January, 1908. It was thus reported by Hon. Henry Lord, President of the Board of Trustees: "The College of Law, which has kept pace in growth and success with the other departments, is now occupying new quarters in the sixth story of Exchange Block, the entire top floor being used. The rooms have been arranged to meet the requirements of this department, in accordance with plans made by Dean Walz. These rooms have good ventilation and ample light, and will be convenient and satisfactory until the number of students shall exceed their capacity."

Within the limits of human foresight, the last statement of the above quotation was safe and correct. A little more than three years later, however, on April 30th, 1911, a devastating fire swept through a large section of the city of Bangor, and among the ruined structures was the Exchange Block, the home of the College of Law. In spite of vigorous efforts to save at least a



STEWART HALL.

portion of the law library, five scorched law books only were rescued from the devouring flames. Among the eleven law school men who came to the attempted rescue, two, Mr. J. K. Tertzag and Mr. Harry B. Westgate, sustained injuries while escaping at the last moment from the burning building. Two of the five books saved were given to these two men as souvenirs. Of the remaining three, one was placed in the new library of the Law School, one was given to Hon. L. C. Southard who had originally presented it to the School, and the third, intended for General Charles Hamlin, was, on his death shortly after the fire, given, very appropriately, to Dean Walz. The College of Law was thus suddenly deprived of its commodious quarters in the Exchange Block, and the problem of its re-establishment was one to be promptly met by the trustees.

An account of the questions and considerations involved, and of the acquisition of the Merrill property at the corner of Union and Second Streets, Bangor, and of the establishment this time of the College of Law in a home of its own, is given in the early part of the chapter treating of Dr. Aley's administration, to which account reference is made for further particulars.

In this connection, we must not forget the generous gift of Hon. David D. Stewart of St. Albans, Maine, and through him the generous aid also from "The Levi M. Stewart Estate." These two sums aggregated between thirty and forty thousand dollars.

Among other gifts to the Law School, mention should here be made of gifts for the library of \$100 each from General Charles Hamlin of Bangor and General Thomas H. Hubbard of New York City, both now deceased. Mention should also be made of the establishment of a special fund for the purchase of law books by

Hon. L. C. Southard of Boston, Mass. Such recognition of the merits and needs of the College of Law is highly appreciated by all parties in interest.

Earlier in date than some of the events that have just been under notice, was the starting of the publication of the *Maine Law Review*, the first number of which was issued in April, 1908. In a recent address delivered by Dean Walz, the following reference was made to this publication. "One great contribution to the life of the School has been the *Maine Law Review*, a legal magazine that promises to become the leading organ of the profession in Maine. Founded by the students with a courage and faith so bold as to exceed anything attempted by other law schools many times the size of our own, the record of the *Maine Law Review* has justified the trust of its founders, is supported by legal writers of note and has now been carried forward to its seventh volume, without any expense to the University, except that of the cost of two advertisements that appear on its pages. The *Maine Law Review* contains excellent college and alumni notes, is found in our leading public and private libraries, is exchanged on equal terms with other law magazines, both here and abroad, and has published in book form Mr. Martin's lectures on Common Law Pleading." For its editorial board, a special room is assigned on the third floor of the Law School Building.

In the same address, Dean Walz recognizes five men as the real founders of the Law School in 1898. Their names are thus given: "They were Hon. William T. Haines, an alumnus of the University, then Clerk of the Board of Trustees, now Governor of the State of Maine; the late General Charles Hamlin, a son of Hon. Hannibal Hamlin, vice-president during Lincoln's first

administration, a citizen of public spirit, a veteran of many battles, a friend steadfast and true; Dr. Abram W. Harris, then President of the University of Maine, now President of the Northwestern University of the great Northwest; Hon. Henry Lord, then President of the Board of Trustees, then as now, a friend of every good cause in need of wise counsel; and A. E. Rogers, Esq., then Professor of Civics and Constitutional Law in the University of Maine, a man popular, energetic and aspiring." Like many other men doing foundation work, these men, assuredly "builded better than they knew."

In its new home, the College of Law is fulfilling its mission under advantages not hitherto enjoyed. Holding to its high standards, it is equipping its graduates and those who come under its teachings, for varied and important fields of service, for which the study of law is the fitting preparation. Its past career is assured and its future is full of promise.

A record in part of what its graduates and former students have done or are doing has been kindly furnished by the Dean of its faculty. This record is herewith submitted: "Of the two hundred and fifty-seven graduates of the University of Maine College of Law, one hundred and eighty-five are Maine men. Of these only fifteen have gone to other New England States or elsewhere, while no less than one hundred and seventy have remained, and given their services to the State of their birth. Of these, twenty have gone into business and one hundred and fifty are engaged in the practice of the law. Of these one hundred and fifty within our borders, no less than fifty-four have served or are serving, the State of Maine in some public capacity, calling for the exercise of their legal abilities, thirteen as legis-

lators, as members either of the Senate or the House of Representatives, nine as city solicitors, eight as county attorneys, eight as judges of probate and municipal courts, five as recorders of municipal courts, two as mayors of cities, two as teachers of the law, two as clerks or assistant clerks of courts, one as United States Commissioner, one as deputy collector United States customs, one as a member of the Electoral College, one assistant attorney general, and one as a member of the board of trustees of the University of Maine; fifty-four in all, a large percentage of the entire number, not to mention four that are serving or have served as judges, two as city attorneys and one as mayor in other states. Three have been members of the House of Representatives of the Commonwealth of Massachusetts and one is teaching law in the same state. Of special students who did not take the degree, three have served or are serving as judges. Numerous other men have served in less prominent or permanent positions such as clerks of legislatures or clerks of legislative committees in various states from Maine to California."

In the period from 1903 to 1915 very considerable changes in the faculty have occurred. The faculty list at date is therefore given.

COLLEGE OF LAW

FACULTY OF INSTRUCTION (1915)

William Emanuel Walz, A. M., LL. B., Litt. D., Dean,
and Professor of Law.

Edgar Myrick Simpson, A. B., Professor of Law.

George Henry Worster, LL. M., Associate Professor
of Law.

Bartlett Brooks, A. B., LL. B., Assistant Professor
of Law.

Lucilius Alonzo Emery, A. M., LL. D., Lecturer on Roman Law and Probate Law.

Louis Carver Southard, M. S., LL. D., Lecturer on Medico-Legal Relations.

Edward Harward Blake, LL. B., LL. D., Lecturer on Admiralty Law.

Isaac Watson Dyer, A. B., Lecturer on Federal Jurisdiction and Procedure, and on Private Corporations.

John Rogers Mason, A. M., LL. B., Lecturer on Bankruptcy Law.

William Bridgham Peirce, B. M. E., Resident Lecturer on Common Law Pleading and Maine Practice.

Henry Burt Montague, LL. M., Lecturer on Practice and History of Law.

For more than fifteen years, the College of Law, with reference to its term-periods, hours of study per week, time of examinations, and general regulations, was essentially a free lance, or a law to itself.

Recently all this has been changed, so that the schedule as to the beginning and ending of terms, and as to the times of examinations and vacations in the College of Law now accords with the general schedule for all other departments of the University. The advantage of this new arrangement is obvious.

In the seventeen years since its organization, the College of Law has met or surpassed all reasonable expectations and performed a service of recognized importance and value. With its substantial and commodious quarters, with its one hundred students, with its fully organized faculty, and with the prestige of its past history, its outlook is, in every way, reassuring. With confidence then, it can go forward to both the service and the reward which the future has in store for it.

CHAPTER XVIII

THE MILITARY DEPARTMENT

MILITARY instruction is required by the U. S. government of all institutions accepting the bounty offered by the Morrill Act of 1862.

Notwithstanding this requirement, the first detail of a U. S. military officer to the Maine State College was made in 1882. An account of this assignment with the incidents connected therewith is fully given in the time-order of events in Chapter IV, to which reference for the essential facts is now made. In connection with this account the reason for delay until 1882 in presenting a claim upon the national government for a military officer is also given.

Before referring to subsequent details, and the development of military instructions in the College and University under army officers, attention should be called to the manner in which the needed instruction in this department was obtained prior to 1882. In a word it can be said that in the fourteen years from 1868 to 1882, the College provided for military instruction precisely as it provided for instruction in any other department, that is, by paying for it from the college treasury.

The history of military instruction in the institution during this period can be briefly told. Soon after the opening of the College in 1868, Capt. Henry E. Sellers of Bangor was engaged as military instructor and remained in service to 1871. His successor from 1871 to 1874 was Capt. James Deane, also of Bangor. Both



THE CADET BATTALION

of these officers rendered good service and are still pleasantly remembered by the early graduates.

From 1874 to 1882, by a singular coincidence, the military instructors were the professors of modern languages, not that there was any necessary connection between the two departments, but rather as a chance or as a sequence of getting this association once started. The first military instructor under this new combination or arrangement was Winfield S. Chaplin, who served also as Professor of Modern Languages and Mechanics. Professor Chaplin was a graduate of West Point who had resigned his commission and had returned to the ranks of civil life. With a military professor on the Campus, who had received West Point training, military instruction came into larger prominence than heretofore.

Among the innovations made by the new instructor in military science and tactics, that of early morning drills will not be forgotten by the students of that period. Professor Chaplin knew how to lead, and his leadership the students took pride in following. His term of service was from 1874 to 1877, when he resigned to accept an appointment in the University of Tokio, Japan. Subsequently, he was Dean of the Lawrence Scientific School of Harvard University and later still Chancellor of Washington University, St. Louis, Mo.

His successor in the Maine State College was Francis L. Hills, Professor of Modern Languages and Military Instructor from 1877 to 1879. Professor Hills' successor was Allen E. Rogers, A. M., who came to the College as Instructor in Modern Languages and Military Science. Although Professor Rogers served the College efficiency through many years, his period of

military instruction was only for the three years from 1879 to 1882, when the first government military detail became available.

It is due these several civilians, military instructors for the period from 1868 to 1882, to say that they rendered the College faithful and efficient service through their duties in the military department.

Since the first detail of an army officer in 1882, other details have followed on notice or request, with only a slight interruption between 1898 and 1901 on occasion of the Spanish War. The vacancy was filled for a part of the time by appointment of Professor Perley Walker, then of the department of Mechanical Engineering, as temporary military instructor.

The following list contains the names and period of service of those who have been military instructors in this institution:

INSTRUCTORS IN THE MILITARY DEPARTMENT

Capt. Henry E. Sellers of Bangor, 1869-1871.

Capt. James Deane of Bangor, 1871-1874.

Professor Winfield S. Chaplin, 1874-1877.

Professor Francis L. Hills, 1877-1879.

Professor Allen E. Rogers, 1879-1882.

2d Lieut. Edgar W. Howe, 17th Infantry, U. S. A.,
1882-1885.

2d Lieut. Charles L. Phillips, 4th U. S. Artillery,
1885-1888.

2d Lieut. Everard E. Hatch, 18th U. S. Infantry,
1888-1891.

2d Lieut. Mark L. Hersey, 9th U. S. Infantry,
1891-1895.

Capt. Winfield Scott Edgerly, U. S. Cavalry, 1895-
1896.

2d Lieut. Herbert Nathan Royden, 23d U. S. Infantry,
1896-1898.

Professor Perley Walker, 1898-1899.

General Benjamin Piatt Runkle, Brevet Major General, U. S. A., 1901-1902.

Capt. Amos H. Martin, 19th U. S. Infantry, 1902-1903.

Capt. Charles J. Symmonds, 12th U. S. Cavalry, 1903-1906.

1st Lieut. Walter Stevens Brown, 10th U. S. Infantry, 1906-1909.

Lieut. Col. Charles Albert Varnum, A. S. A., 1909-1912.

1st Lieut. Ralph Rigby Glass, 21st U. S. Infantry, 1912-1914.

1st Lieut. Frank Sheldon Clark, U. S. Coast Artillery, 1914—.

The military organization from the first has been known as the Coburn Cadets. The uniform first adopted was similar to that worn by the cadets at West Point. The hours of drill have usually been from two to three hours per week, with class-room instruction additional. The course of instruction has been modified from time to time in accordance with orders from the war department.

The sentiment of the State forty odd years ago, in regard to the matter of military training in the College, was well reflected in the following reference to this subject by Ex-Governor Abner Coburn, President of the Board of Trustees in his report for 1873:

“MILITARY INSTRUCTION

“The facilities for military instruction in this country are extremely limited, there being but one academy upon whose graduates the government can depend for military knowledge in case their services are needed.

“To compensate in part for this dearth of military knowledge, Congress has required that military tactics shall be included in the course of instruction in the sev-

eral institutions that exist by virtue of the act for the establishment of Colleges of Agriculture and the Mechanic Arts. This is a subject of vital importance to the states as well as the nation; and with the lessons of the late war fresh in the public mind, it is only necessary to assert that each state should provide military instruction for a portion of its citizens. Two companies of cadets have been organized at the State College and the men composing them have responded to the duties required of them with cheerful alacrity and an earnest purpose to make the most of their opportunities in this direction. The facility they have acquired in the manual of arms, and the precision of their movements and their soldierly bearing, have been heartily commended by those who have witnessed their performances."

In this passage, Governor Coburn not only reflected sentiment in the State, but the attitude of the cadets toward military training. With them skill of attainment has constantly been a matter of just pride.

In the same report, President Allen refers to an award of fifty dollars to the "Coburn Cadets" as a prize at a competitive drill in Bangor on the Fourth of July, 1873. This money with thirty-seven dollars more, raised by the students from their own number, was devoted to the purchase of "a beautiful battalion flag," an illustration of their interest and enthusiasm. Dr. Allen adds: "Although the students voluntarily assume the expense of their uniforms and of other needful things in the complete organization of their battalion, yet, if assistance could be furnished them, the bounty would be well bestowed on some who can hardly afford the expense." Whatever others may have done or may not have done in response to this suggestion, the writer does not forget that in those days Ex-Governor Coburn stood

ready in genuinely deserving cases of this nature to extend the needed aid.

While military instruction has been very completely maintained since 1868, its larger service, necessarily, has been since the assignment of officers by the War Department beginning in 1882. In the way of indicating the situation at that time as regards military matters, the following extract is taken from Lieut. Edgar W. Howe's first report, after three months' service: "I have the honor to report that I actively assumed the duties of Professor of Military Science and Tactics on the fifth day of September, 1882, in obedience to orders from the Honorable Secretary of War.

"There were three drills each week, each an hour in length, during the months of September and October. During the month of November, there were two drills each week, each drill being thirty minutes in length. Instruction was given in the school of the soldier and the school of the company as prescribed in Upton's Infantry Tactics. The students have shown an average aptitude for military exercises, and have manifested a more than average interest in military matters.

"A new uniform of cadet gray, combining serviceable qualities with cheapness and neatness, has been adopted. I recommend that all students be required to wear the prescribed uniform at all times while at the College, except when engaged in farm work. The expense to them in clothing will be diminished by doing so. When visiting the village or leaving college for a few days, the wearing of the uniform should, of course, be optional.

"There is needed a gymnasium, or hall, in which military exercises may be held during the winter months and stormy weather."

In the early years of their training, the Coburn Cadets were often called into service on Memorial Days in near-by towns or cities. For many years, they had annual or frequent encampments at Augusta, or Fort Knox or at some other easily accessible locality. Occasional attendance upon the sessions of the State Board of Agriculture at such remote points in the State as Fryeburg or Alfred will not be forgotten by those who were so fortunate as to participate in these excursions. Memorable also was the annual attendance upon the Maine State Fairs in Lewiston for a period of several years.

In these excursions and encampments, and in attendance upon agricultural meetings and fairs, it is hardly necessary to say that the soldierly bearing and gentlemanly conduct of the Cadets won for them high admiration, and for the institution which they represented a large measure of appreciation. These excursions were made possible only by the great courtesy and liberality of the principal railroads of the State. They had a value not only for the students but for the institution itself which was thus made more widely known not only at important centres, but throughout the State.

Instruction by government military officers assigned to duty at Orono has not always been limited to the military department. At times, they have very kindly responded to needs of the institution in other directions and have given instruction in other subjects. This practice, however, obtained more in the earlier than in the later years.

With increasing numbers of students, modifications of plans and methods have been found necessary in the military as in all other departments. Without tracing these changes in succession, or giving in detail the

course of instruction, the status of this department in recent years can best be indicated by giving in part the general statement in regard to it as found in late catalogues. For this purpose an extract is taken from the catalogue of 1914-1915.

"The department is in charge of an officer of the regular army, detailed by the President of the United States. United States army rifles, model 1898, ammunition, and accoutrements are furnished by the War Department. The students are organized into an infantry battalion of six companies and band, officered by cadets selected for character, soldierly bearing and military efficiency. The corps is instructed and disciplined in accordance with rules established by the President of the United States. These rules include the minimum course of instruction that must be covered, and the minimum time that must be devoted to this instruction.

"The uniform prescribed by the Board of Trustees is as follows: For commissioned officers, the olive-drab service uniforms prescribed for infantry officers of the United States Army, except that 'Maine' insignia and buttons are used; for non-commissioned officers and privates, the olive-drab service uniforms of the United States Army, except that 'Maine' insignia and buttons are used, and trousers instead of breeches. The total cost of the uniform is \$14.15. Cadets are required to wear the uniform when on military duty.

"The three seniors who attain the highest standing in the Military Department are reported to the Adjutant General of the United States Army and their names are printed in the Army Register," a practice that has obtained for many years. "Cadets who have satisfactorily completed the course in military science receive

at graduation a certificate of military proficiency and are reported to the Adjutant General of the state in which they reside.

"With the exceptions noted below, all men students physically qualified are required to take military work for three hours a week during their first and second years at the University. Those physically disqualified are required to elect other work equal to one credit in lieu of military work. No fractional credit for military work will count towards graduation. Military instruction is arranged in a four-year course. After the freshman and sophomore years, the work is elective. Students in the College of Law, the School Course in Agriculture, the two-year curriculum in Pharmacy, and graduate students are excused from military work."

The foregoing statement taken from the catalogue of 1914-1915 has been modified by order of the War Department in one particular. Instead of reporting three seniors who attain the highest standing in the Military Department to the Adjutant General of the United States Army each year, the practice which now obtains is controlled by the following order: "Upon graduation of every class, the Professor of Military Science and Tactics, after consultation with the President of the College or School, will decide upon and report to the Adjutant General of the Army the names of such students belonging to the class as have shown special aptitude for military service, and will furnish a copy of his report to the Adjutant General of the State of which such graduates are resident." Under this order the number to be reported, instead of three, varies from year to year. As a matter of fact, the number reported has been somewhat variable from the first as shown by the submitted list.

Names of graduates of the University of Maine, Orono, Maine, reported to the War Department as having shown aptitude for military service:

1889	1902
John Reed.	Edwin S. True.
C. G. Cushman.	Walter H. Eldridge.
1890	Alpheus C. Lyon.
Edward H. Kelley.	1903
John Bird.	Fred Collins.
Joseph R. Rackliffe.	Paul D. Simpson.
1891	Ernest A. Porter.
Edmund Clark.	1905
Wallace R. Farrington.	George W. Carle.
Hugo G. Menges.	James H. McClure.
1892	Calvin A. Sweet.
Mortimer L. Bristol.	1906
Robert H. Fernald.	James G. Wallace.
1893	H. A. Emery.
Walter W. Crosby.	P. H. Glover.
George A. Whitney.	1907
1894	Fred S. N. Erskine.
Edward Butler Wood.	Sidney M. Bird, 2d.
Augustus D. Hayes.	1908
Herbert Murray.	J. Jacobs.
1895.	J. S. Irish.
Harold S. Boardman.	B. I. Collins.
Earl C. Merrill.	1909
Melville F. Rollins.	Harold M. Bowman.
1896	George V. Nauman.
Frank L. Marston.	1910
Paul D. Sargent.	George A. Wakefield.
Charles P. Weston.	Harold W. Wright.
1897	John N. Philbrook.
William T. Brastow.	1911
Charles S. Bryer.	Sumner Waite.
Stephen S. Bunker.	

1912
Benjamin C. Kent.
William R. Ballou.

1913
John L. Ober.
Bernard A. Ahrens.
Philip S. Bolton.
John N. Hart.

1914
Woodbury F. Pride.
Fernando T. Norcross.
Alden B. Hayes.
Oswald B. Higgins.

1915
James S. Crandall.
Loren P. Steward.

Throughout the forty-seven years of its existence, the military department has been an important feature of this institution. It has maintained an honorable record. Great credit is due its efficient officers of instruction. In closing this brief and imperfect record of their service to the College and University, it seems desirable to present again the names of the officers assigned by the government with their present rank and postoffice address as given in a recent Army Directory. They and their families remain with us still in interest and in memory.

Edgar W. Howe, Lieut. Colonel, retired, 410 West 154th Street, New York City.
Charles L. Phillips, Colonel, Coast Artillery, Manila, Philippine Islands.
Everard E. Hatch, Colonel, Infantry, Army War College, Washington, D. C.
Mark L. Hersey, Major, 18th Infantry, Naco, Arizona.
Winfield Scott Edgerly, Brigadier General, retired, Cooperstown, New York.
Herbert Nathan Royden, Captain, retired, San Mateo, California.
Benjamin Piatt Runkle, Lieut. Colonel, retired, 1337 L. St., N. W. Washington, D. C.
Amos H. Martin, Captain, 14th Infantry, Ft. Davis, Alaska.
Charles J. Symmonds, Major, 7th Cavalry, Manila, Philippine Islands.

Walter Stevens Brown, Captain, retired, North Bridgton, Maine.

Charles Albert Varnum, Lieut. Colonel, retired, Portland, Oregon.

Ralph Rigby Glass, 1st Lieut., 21st Infantry, Vancouver Bks., Washington.

Frank Sheldon Clark, 1st Lieut., Coast Artillery, University of Maine, Orono, Maine.

CHAPTER XIX

PRINCIPAL BUILDINGS WITH DATE OF CONSTRUCTION

A DESCRIPTION of the principal buildings has been given in recent catalogues and hence may well be omitted from this chapter. The order of construction, however, reflects in an important way the progress or development of the institution and hence has historic value.

White Hall, a three-storied wooden building, under construction in 1867 and completed in 1868. This was the first building for class-room and dormitory purposes. It contained also the President's office for several years. It was destroyed by fire February 9, 1890. In the later years before its destruction, it was known as Wingate Hall, and this name was continued for the engineering building constructed on the site of White Hall in 1892.

Chemical Laboratory, now known as Fernald Hall, under construction in 1869 and completed in 1870. On November 2, 1895, the ell of this building was ruined by fire. In 1896, a new wing replaced the ell destroyed by fire, and the building was then given the name by which it is now known, in honor of Merritt Caldwell Fernald.

Oak Hall, named in honor of Hon. Lyndon Oak, member and President of the Board of Trustees, under construction in 1870 and completed in 1871. The bricks for this building and in part for other buildings on the Campus were manufactured on the

college premises, in a yard near the woods north-east of the present athletic field. In 1895, extensive repairs were made in Oak Hall, greatly improving the interior of the building.

Boarding House, under construction and completed at the same time as Oak Hall with which it was connected by a corridor. The dining room was opened to students in March, 1871. In later years the building was known as the Commons. In 1911 it was remodelled in the interior for the English Department and since that date it has borne the name of Estabrooke Hall.

President's House, under construction in 1872 and completed in 1873. As reported elsewhere, the interior of this house was badly damaged by fire on January 20, 1893. In the renovation and remodelling done the same year the piazza was added and the tower built.

Professor's House, constructed in 1873. Its location is near the waiting station. This house was first occupied thirteen years by the family of Professor Charles H. Fernald, Professor of Natural History from 1871 to 1886, and subsequently in succession by the families of several other professors. The present occupancy is by the family of Dean L. S. Merrill of the College of Agriculture.

Barn No. 1, under construction in 1873 and completed in 1874.

Farm House, constructed in 1877. This building is now known as the Maples. In the same year a stable for horses was moved to the new site and thoroughly repaired.

Mechanical Shop, a wooden building constructed in 1883.

Barn No. 2, located near and east of Barn No. 1, and obtained by removal of the so-called Goddard barn from its lot near the present athletic field. Date of removal, 1886.

Water Tower, built in 1887. Removed after connection was made with Orono water works.

Coburn Hall, named in honor of Ex-Governor Abner Coburn, under construction in 1887, completed and dedicated in 1888. Architect, Mr. Frank E. Kidder, of the class of 1879.

Experiment Station, built in 1888, addition built in 1899, building enlarged in 1904 and named Holmes Hall.

Cottages, one for farm foreman and one for janitor, built in 1889.

Dairy House, built in 1891.

Horticultural Building, constructed in 1891.

Wingate Hall, named for Hon. William P. Wingate, member and President of the Board of Trustees, under construction in 1891, completed in 1892. It is on the site of what was originally known as White Hall which was destroyed by fire in 1890.

Oak Hall, repaired extensively in 1895.

Mt. Vernon House, the old White house built in 1833, extended and rebuilt in 1898 as a dormitory and boarding house for women students and given the name of Mt. Vernon House, from a resemblance to the home of Washington.

Observatory, built in 1900.

Alumni Hall, named in honor of the Alumni who bore in part the expense of construction, its cornerstone laid by Governor Powers, June 12, 1900, completed 1901.

Art Guild, a building attached to the Commons but removed to a new site and used by the Art Guild and by the Young Men's Christian Association in 1901.

Lord Hall, named in honor of Hon. Henry Lord, earnest champion of the University in the Legislature, member and President of the Board of Trustees, Mechanical Engineering Building, under construction in 1903, completed 1904.

Library Building, commenced in 1905 and completed in 1906.

Power Plant, constructed in 1907.

Winslow Hall, named in honor of Hon. Edward Brackett Winslow, member and President of the Board of Trustees, Agricultural Building, commenced in 1908, completed in 1909.

Professors' Houses, three in number, built in 1909, and occupied at the present time respectively by the families of Professors Gray, McKee, and Pearl. The last-named house was earlier occupied by Lieut.-Colonel Charles A. Varnum and Professor Bell.

Hannibal Hamlin Hall, named in honor of Hon. Hannibal Hamlin, first President of the Board of Trustees, commenced in 1909, finished in 1910.

Estabrooke Hall, named in honor of Professor Horace Melvyn Estabrooke, remodelled from the Commons in 1911.

Stewart Hall, in Bangor, for the College of Law, acquired in 1911, named in honor of Hon. David D. Stewart.

Aubert Hall, named in honor of Professor Alfred Bellamy Aubert, a building for the departments of Physics and Chemistry, commenced in 1913 and finished in 1914.

Balentine Hall, named in honor of Elizabeth Abbott Balentine, a home for women students, one section finished in 1914, and the remaining portion to be completed in 1916.

North Hall, assigned for women students in 1915. This house was known as the Goddard House or Frost house prior to 1868, as it had been owned and occupied by Col. John Goddard and by Mr. Nathan Frost. It was on the site of the present Beta House. In the early years of the College, it was occupied by the writer's family from 1868 to 1879. Later it was occupied by the family of Professor Allen E. Rogers, and later still by the Beta Theta Pi Fraternity. Before the building of the Beta House in 1905, the Frost house was removed to its present site near the north line of the Campus where it has been occupied by the Sigma Nu Fraternity. As stated above it now becomes a Hall for women students. As a matter of history, its record is worthy of preservation.

CHAPTER XX

FINANCES

THE object of this chapter is not to show the finances in detail, but rather to show the development of the institution from a financial point of view. For this purpose, after a very brief statement of the origin or beginning of its finances, it is proposed to give the yearly receipts and expenditures at varying intervals of time. The years selected, after the early financial statements, are those which mark the close of the successive administrations, except that for the present administration the year from June 30, 1914 to June 30, 1915 is selected. No uniform plan or scheme for presenting the data can be adopted, as the plan suited to an early period may be entirely inadequate to a later one. The elements of the financial exhibit, at first simple, become as the years go by more and more complex.

The first Treasurer of the College, prior to the opening of the institution, was Hon. Phineas Barnes of Portland, a lawyer of ability and prominence. His first report, and possibly his only report as Treasurer, was dated January 17, 1867. It comprised all the money transactions which had come under his cognizance as Treasurer from the organization in April, 1865, down to December 31, 1866. This report included two accounts, namely, a general cash account and the Congressional endowment account. Under the former, the receipts reported between March 29,

1866 and December 31, 1866, were: on account of the Bangor subscription of 14,000, the sum of \$12,700, and on account of sales at Orono, the sum of \$7, making total receipts \$12,707. The expenditures made by direction of the Executive Committee were: \$4,250 paid to Mr. John H. Gilman, Farm Manager at Orono, in varying sums as needed, and general expenses, mainly the travelling expenses of the Trustees, one from each county in the State, \$1,186.37, making a total of \$5,436.37. Of the balance, \$7,270.63, the sum of \$7,173.30 was deposited in the First National Bank, Bangor.

The Congressional endowment fund came from the sale of land scrip, apportioned to this State for the College. The whole amount of this scrip was for 210,000 acres, of which all but that for 17,200 acres had been sold. Of this sale and the result, Mr. Barnes made the following statement: "The State Treasurer has transmitted to me a statement of the proceeds of sales, and of investment of the same, giving results as follows:

Proceeds of sales	\$102,759.20
Invested in Bonds of the State of Maine to the amount of \$104,500, costing . . .	102,564.50
Surplus	\$ 194.70
Interest received on this invest- ment to Dec. 31, 1866 . . .	\$2,773.47
Accrued interest paid on pur- chase of the Bonds . . .	1,167.92
	<hr/> 1,605.55
	<hr/> \$ 1,800.25
Cash in the State Treasury of which the net income \$1,605.55 is subject to the disposal of the Trustees.	

By way of indicating the scrupulous care of Mr. Barnes in handling trust funds, the final paragraph of his report is given: "To observe, with certainty, the restrictions imposed by the Act of Congress, upon the application of the Congressional endowment and of its income, the accounts of this fund will require to be kept rigorously distinct from the accounts of means and income realized from other sources."

In 1867, the State legislature appropriated \$20,000 for the College and in 1868 the appropriation was \$10,000. Out of the funds thus furnished, together with the Bangor subscription, the first college building, known as White Hall, was erected, other buildings on the grounds repaired, and other expenditures incurred preparatory to the opening of the College.

Hon. Isaiah Stetson of Bangor was the efficient Treasurer of the College from 1867 to 1879. His second annual report for the year from December 1, 1867 to December 1, 1868, covered the period of the opening of the College (September, 1868) but did not include anything paid for salaries. In those days, salary payments were made quarterly, and were not due for the first quarter until December 1.

Mr. Stetson as Treasurer kept three accounts, namely, a general account for ordinary farm and incidental expenses, a construction account covering in the expenses incurred for new buildings and extensive repairs, and the Congressional endowment account in which was credited the interest on the State bonds purchased from the proceeds of the sale of land scrip. The general account summarized for the year ending December 1, 1868 appears thus:

RECEIPTS

1867.	Dec. 1.	Balance in hands of Treasurer	\$3,336.09
1868.	May 20 and June 7.	Received on the "Bangor Subscription"	300.00
1868.	December 1.	Received for interest on deposits	706.10
			<hr/>
			\$4,342.19

DISBURSEMENTS

1868.	March 12 to December 1.	Paid on 12 vouchers and for revenue stamps	\$2,555.67
		Balance to credit of new account	1,786.52
			<hr/>
			\$4,342.19

Construction Account for same year, summarized:

RECEIPTS

1867.	December 1.	Balance in hands of Treasurer	\$10,587.07
1868.	May 8.	Received of State Treasurer, Appropriation for 1868 . .	10,000.00
		Balance charged to new account.	200.35
			<hr/>

DISBURSEMENTS \$20,787.42

1867.	December 2 to 1868, November 17.—	Paid on 56 vouchers . . .	\$20,787.42
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Congressional Endowment Account, summarized, for same year:

RECEIPTS

1867.	December 1.	Balance in hands of Treasurer	\$ 6,570.55
1868.	January 18 to November 27.	Received of State Treasurer, Interest on State of Maine Bonds . .	7,575.00
			<hr/>
			\$14,145.55

DISBURSEMENTS

1868. August 5. Paid M. C. Fernald, for purchase of apparatus . . .	\$ 500.00
September 25. Paid Minnesota Valley Railroad Co. for 100 shares preferred stock paying 10% per annum . . .	10,000.00
	<hr/>
	\$10,500.00
Balance Credited in New Account .	3,645.55
	<hr/>
	\$14,145.55

Having thus drawn from early records enough to show the financial status at the date of the opening of the College, the plan suggested at the beginning of this chapter will now be followed, that is, to give the receipts and expenditures on the years that mark the close of the successive administrations beginning with 1871, the year of the close of the writer's brief administration as Acting President.

Before giving definite figures, however, it should be stated that, in the main, the receipts for both the general account and the construction account were from the same source, namely, State appropriations. In 1869, the state appropriation for the College was \$28,000, but for reasons relative to the title to the property previously explained, this sum was not available that year. In 1870, the legislature reappropriated the \$28,000 with \$22,000 additional, that is, \$50,000. In 1871, the appropriation was \$6,000, making in the three years \$56,000. This whole sum of \$56,000, in the book-keeping, was assigned to the construction account, with nothing assigned to the general account from this source. A temporary overdraft or deficiency in this general account, therefore, simply indicates that, for a

time, its due proportion of the State appropriations had not been assigned to it. With this statement, a summary of the accounts for 1871 is given.

Receipts in general account as above explained	\$0,000.00
Disbursements in general ac- count	\$2,389.22
Receipts in construction account	\$23,351.35
Disbursements in construction account	19,094.13
Credit in new account	\$ 4,257.22
Receipts in Congressional Endowment Ac- count	\$ 7,728.22
Disbursements in Congressional Endow- ment Account	9,663.64
Balance charged in new account	\$ 1,935.32
Cost of maintaining the College for the year without construction	\$12,052.86
Cost of maintaining the College for the year with construction	31,146.99

At first, the interest on the Congressional endowment fund sufficed for salaries, and for a part of the expense for apparatus. By 1871, however, it was evident, that the account for salaries and department expenses would have to be reinforced from time to time from State appropriations.

The year 1878 was the closing year of Dr. Allen's administration. In this year no construction account as such was kept. The financial status under two accounts is herewith given:

GENERAL ACCOUNT

Receipts, including \$6,500 from legislative appropriation	\$ 8,720.58
Disbursements	5,892.18
Credit in new account	\$ 2,828.40

CONGRESSIONAL ENDOWMENT FUND

Receipts	\$17,580.40
Disbursements	19,733.62

Balance charged in new account . . .	\$ 2,153.22
Receipts in excess of expenditures . . .	675.18
Cost of maintaining the College for the year 1878, with no construction in progress	25,625.80

In the foregoing financial exhibits, boarding house accounts have not been included, inasmuch as in these accounts receipts and disbursements essentially balance each other. The State appropriations during Dr. Allen's administration amounted to \$94,718.

The year 1893 was the last in the writer's administration. The financial year was from July 1, 1892 to June 30, 1893. As Ex-Governor Coburn's Bequest and several smaller funds had been added to the endowment, a restatement of the endowment funds at the date named is herewith submitted:

United States Land Grant Fund . . .	\$118,300.00
Accumulated interest on Land Grant Funds	9,000.00
Coburn Bequest	100,000.00
The Coburn Military Loan Fund . . .	100.00
The Frank E. Kidder Scholarship Fund . .	675.00
The Nehemiah Kittredge Loan Fund. Original \$600.00	716.72
Total	\$228,791.72

The Land Grant Fund, invested in State of Maine bonds bears interest at 5%, and the Accumulated Interest bonds bear interest, \$2,000 at 5%, and \$7,000 at 6%. The Coburn Bequest, in State of Maine bonds, bears interest at 4%.

The estimated income of the College for the next financial year is given by the Treasurer as follows:

Coburn Bequest	\$ 4,000.00
Land Grant Fund	5,915.00
Security Loan and Trust Company	180.00
Knox and Lincoln Bonds	50.00
Trenton Passenger Railway Company	60.00
Portland and Rumford Falls Railroad Com- pany	50.00
State Appropriation	7,000.00
United States Government. Morrill Bill	19,000.00
United States Government. Hatch Bill for Experiment Station	15,000.00
From inspection of fertilizers. Experiment Station	850.00
From other sources. Experiment Station	325.93
Rent of houses on campus	614.00
	<hr/>
	\$53,044.93

In 1893, the Treasurer's report shows that the accounts of the College, including the Experiment Station, were treated as a unit, the earlier divisions of General Account, Construction Account and Congressional Endowment Account, being no longer maintained, the single account practically covering in all the divisions.

The receipts and expenditures of 1893 are given below, analyzed to the extent of presenting the larger items, with the smaller items grouped under appropriate headings.

RECEIPTS FROM JULY 1, 1892 TO JUNE 30, 1893

State Appropriation	\$ 5,000.00
U. S. Appropriation under the Hatch Act.	15,000.00
U. S. Appropriation under the Morrill Act	18,000.00

Interest on Coburn Fund	4,000.00
Interest on Land Grant Fund	5,915.00
Interest on City of Bangor and other bonds	360.00
Rent	400.00
Insurance received on President's house	1,492.50
Board of students	15,756.86
Miscellaneous items	7,346.47
<hr/>	
Total	\$73,270.83

EXPENDITURES FROM JULY 1, 1892 TO JUNE 30, 1893

Salaries, College	\$24,043.34
Salaries, Experiment Station	9,574.97
Departments, Apparatus, etc.	15,238.84
Boarding House	8,819.61
General Expenses	15,540.64
<hr/>	

Total \$73,217.40

Credit in new account 53.43

Cost of maintaining the College for the year
including expenses of the boarding
house \$73,217.40

Appropriations by the State during Dr. Fernald's administration amounted to \$133,000.

The last year of Dr. Harris' administration was the year 1901. The financial year considered was from July 1, 1900 to June 30, 1901. The Treasurer reported for the College and for the Experiment Station separately but for the purposes of the present statement, the two reports are combined. In other words, the University is regarded as a unit, of which the Station is a part.

The receipts and expenditures are given under the general form adopted in the statement for the year 1893.

RECEIPTS OF THE UNIVERSITY FROM JULY 1, 1900 TO
JUNE 30, 1901

Land Grant Fund	\$ 5,915.00
Coburn Fund	4,000.00
Morrill Fund	25,000.00
Hatch Fund. Experiment Station .	15,000.00
The State	20,000.00
Rents	1,372.86
Bills Receivable	1,132.11
Interest	720.16
School of Law	1,680.00
Library Fines	29.41
Diplomas	157.78
Personal Collections (A. & L.) . .	125.78
Commons (old bills)	1,023.55
Drill Hall Subscriptions	3,072.96
Mt. Vernon House (old bills) . .	194.56
Sundry small receipts	496.91
Student Receipts	18,900.08
<hr/>	
Total	\$98,821.16

NET EXPENSES OF THE UNIVERSITY FROM JULY 1, 1900 TO
JUNE 30, 1901

Salaries. University	\$44,638.75
Salaries. Experiment Station . .	7,902.34
Pay of Employees. Experiment Station	1,756.75
Departments. Apparatus, books, etc. .	10,854.59
General Expenses. University . .	20,753.78
General Expense. Experiment Station	5,390.91
<hr/>	

Current Expenses of the University for the
year \$91,247.12

Balance, Credit in new account 7,574.04

In addition to current expenses were expenses of construction as herewith shown:

Alumni Hall (Drill Hall)	\$26,948.20
Coal Pit	778.71
Heating Plant	1,733.75
Observatory	327.49
Track	109.99
	<hr/>
	\$29,898.14

The State appropriations during Dr. Harris' administration were \$160,000. Under a legislative resolve of 1897, \$20,000 a year was granted for ten years. The endowment funds, not definitely stated in the report, were essentially as given in the records for 1893.

The closing year of Dr. Fellows' administration was 1910. The financial statement is for the fiscal year ending June 30, 1910. As the Treasurer submits separate reports for the general University and the Experiment Station, it will contribute to clearness to follow the same plan in presenting the accounts, and afterwards to combine the figures so that the University in its finances may still be represented as a unit. Following this plan, the figures will first be given for the University, omitting the Experiment Station.

INCOME OF UNIVERSITY FROM JULY 1, 1909 TO JUNE 30, 1910

Interest on Land Grant Fund	\$ 5,915.00
Federal Aid under Morrill Act of 1890 and Amendment of 1907	40,000.00
Interest on Coburn Fund	4,000.00
State Appropriation for Current Expenses and Buildings	133,000.00
Tuition Fees	22,074.00
Sales, College of Agriculture	10,590.42
Registration and Incidental Fees	17,050.00
Rents	1,941.50
Sundry Minor Receipts	2,538.71
	<hr/>
Total	\$237,109.63

DISBURSEMENTS OF THE UNIVERSITY FROM JULY 1, 1909 TO
JUNE 30, 1910

Salaries, Officers	\$ 8,762.30	
Salaries, Instructors	93,128.95	\$101,891.25
Administration Expenses		10,645.22
Maintenance of Property including Re- pairs and Care of Buildings		12,848.95
Heat, Light and Power		18,167.96
Department Expenses, not including Col- lege of Agriculture		22,172.10
College of Agriculture, not including Sal- aries of Instructors		21,087.54
House Charges, University Inn, and Com- mons		7,139.39
Water Supply		1,893.94
Sundry Accounts		607.54
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Cost of Maintaining University, exclusive of Experiment Station		\$196,453.89
Balance in new account		40,655.74

MAINE AGRICULTURAL EXPERIMENT STATION

INCOME FOR THE FISCAL YEAR ENDING JUNE 30, 1910.

Adams Fund	\$ 13,000.00
Hatch Fund	15,000.00
General Fund	1,428.72
Appropriation for Food, Seeds, etc.	13,500.00
Appropriation for Printing Reports, etc	5,526.28
Inspection Receipts	2,144.77
Highmoor Farm	1,100.71
Appropriation for Purchase of Highmoor Farm	10,000.00
General Fund Balance from 1909 Ac- count	1,137.83
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Total	\$ 62,838.31

EXPENDITURES FOR THE FISCAL YEAR ENDING JUNE 30, 1910

Salaries	\$ 27,388.81
Pay of Employees	1,469.31
Printing Reports, etc.	5,526.28
Purchase of Highmoor Farm	10,000.00
Equipment and Supplies	7,193.45
General Expenses	4,821.69
<hr/>	
Total	\$ 56,399.54
Credit Balance in new account	6,438.77

RESULTS COMBINED

Income of University, not including Ex- periment Station, 1910	\$237,109.63
Income of Experiment Station, 1910	62,838.31
<hr/>	
Income of University regarded as a unit	\$299,947.94
Expenditures of University, exclusive of Experiment Station, 1910	\$196,453.89
Expenditures of Experiment Station, 1910	56,399.54
<hr/>	
Expenditures of University regarded as a unit	\$252,853.43
Balance in new accounts	47,094.51

A large credit balance has been but temporary in the history of the University. Usually, a close relation has obtained between income and disbursement.

In closing the financial exhibit for 1910, the assets of the Experiment Station are herewith submitted:

FOR THE YEAR ENDING JUNE 30, 1910

ASSETS

Highmoor Farm	\$10,000.00
Holmes Hall	18,500.00
Incubator House	1,800.00
Poultry Houses	3,350.00

Due from State of Maine Appropriation for Analysis of food, seeds, etc.	9,000.00
Due from State of Maine Appropriation for printing reports	3,473.72
Inventory, Highmoor Farm	5,087.91
Inventory, Furnishings, Fixtures and Ap- pliances	29,948.91
<hr/>	
Total	\$81,160.54

The State appropriations, general and special for the University during Dr. Fellows' administration amounted to \$560,940.94.

As stated at the beginning of this chapter, the year selected in Dr. Aley's administration is the one ending June 30, 1915. The receipts and expenditures are given somewhat more in detail than heretofore, in order that this statement, closing the record for a half century, may represent to the reader the financial transactions of the University, at date, in quite definite form. As in the statement for 1910, the figures are given for the general University and the Experiment Station separately, and then combined.

INCOME OF THE UNIVERSITY FOR THE YEAR ENDING
JUNE 30, 1915

Federal Aid, Interest on Land Grant Fund	\$ 5,915.00
Federal Aid, Morrill Act, 1890, and Amendment, 1907	50,000.00
State Appropriation for Maintenance	116,250.00
State Appropriation for New Laboratory	18,750.00
State Appropriation for New Dormitory	5,000.00
Interest on Coburn Bequest	4,000.00
Rents	1,971.06
Registration Fees	9,080.00
Tuition Fees, General	22,507.50
Tuition Fees, College of Law	6,155.29
Incidental Fees	17,865.00

Special Fees for Late Registration, Diplomas, etc.	750.18
Income from Dormitories	10,548.85
Income from Departments, Law Library, Me- chanics, Drawing, etc.	1,527.53
Laboratory Fees, General University	7,488.33
Laboratory Fees, College of Agriculture	2,234.34
Sales, College of Agriculture	11,073.85
Board of Students, Summer Term, 1914	49.87

Total \$291,166.78

EXPENDITURES OF THE UNIVERSITY FOR THE YEAR
ENDING JUNE 30, 1915

Salaries of Officers	\$ 11,308.40
Salaries of Instructors	134,097.43
Administration Expenses:	
Printing Reports and Bulletins \$ 1,147.78	
Advertising	427.15
Clerk Hire	5,131.46
Commencement	713.34
Freight and Express	1,416.32
Office Supplies and Postage	3,109.14
Telephone and Telegraph	638.78
Travelling Expenses	1,126.93
Interest and Discount	1,155.57
Printing and Binding	316.18
Miscellaneous	750.81
	15,933.48
Maintenance of Property:	
Repairs to Buildings	\$ 9,649.48
Care of Buildings	7,484.24
Furnishings and Fixtures	2,321.61
Insurance	2,147.30
Athletic Field	582.81
	22,185.44
Heat, Light, Power, Water and Grounds:	
Labor	\$ 8,565.02
Supplies	8,122.55
Electricity	2,421.01
Coal	12,213.83
Water	1,406.62
Grounds	3,194.13
Freight and Express	459.82
	36,382.98

Department Expenses :

Civil Engineering	\$ 749.96	
Electrical Engineering	688.18	
College of Law	9,428.33	
Library	2,522.14	
Mathematics and Astronomy	3.37	
Machanical Engineering	1,245.96	
Military Science	387.39	
Physical Training	664.76	
Latin	76.60	
English	160.68	
History	65.90	
Economics and Sociology	30.90	
Greek	135.40	
Philosophy	25.00	
Biology	537.10	
Chemistry	4,048.56	
Pharmacy	357.12	
Physics	1,992.39	
Technology Extension	85.35	23,205.09

House Charges :

University Inn	\$444.65	
Mt. Vernon House Annex No. 1	279.58	724.53

College of Agriculture :

Salaries of Instructors, \$27,993.29;
included in item No. 2 above.

Pay of Employees	\$9,562.59	
Equipment	911.90	
Horses	475.30	
Other Live Stock	147.00	
Feed	6,040.02	
Hay and Straw	98.88	
Fertilizers, Seeds, etc.	304.89	
Sundry Supplies	3,110.71	
Travelling Expenses	2,114.39	
Postage, Printing and Stationery	1,863.39	
Freight and Express	608.65	
Wood Account	418.22	
Farmers' Week	202.63	
Forestry	521.66	26,380.23

Sundry Accounts:

Prizes	\$ 105.00	
Thesis Binding85	
Summer Term, 1914	1,638.07	
Profit and Loss	982.13	2,726.05

Cost of maintaining the University
for the year, not including the
Experiment Station

\$272,943.63

Balance, Credit in New Account 18,223.15

The following financial exhibit of the Experiment Station does not include the debit or credit balances of the preceding year, but is limited to the transactions of the year ending June 30, 1915.

MAINE AGRICULTURAL EXPERIMENT STATION

RECEIPTS

Adams Fund	\$15,000.00
Hatch Fund	15,000.00
General Account	9,300.66
Inspection Analysis	11,859.86
Inspection Analysis Receipts	699.16
Animal Husbandry Account	5,000.00
Aroostook Farm	5,715.86
Sheep Account	309.87
Total	\$62,875.41

EXPENDITURES

Salaries	\$36,859.67
Pay of Employees	9,916.22
Equipment and Supplies	15,084.72
General Expenses	6,878.45

Cost of maintaining the Station for the year \$68,739.06

Debit Balance in New Account 5,863.65

RESULTS COMBINED

Receipts of University, not including Experiment Station, 1915	\$291,166.78
Receipts of Experiment Station	62,875.41
<hr/>	
Receipts of University, regarded as a unit	\$354,042.19
Expenditures of University, exclusive of Experiment Station, 1915	\$272,943.63
Expenditures of Experiment Station	68,739.06
<hr/>	
Expenditures of University, regarded as a unit	\$341,682.69
Balance in New Account	12,359.50

Stable assets of the University, not including the Experiment Station. These assets include Trust Funds, Land and Buildings, and Inventories representing actual values in possession as nearly as they can be determined.

Trust Fund Investments:

Coburn Trust Fund	\$100,000.00	
U. S. Land Scrip Fund	118,300.00	
Levi M. Stewart Fund	20,000.00	
David D. Stewart Fund	13,750.00	
Nehemiah Kittredge Loan Fund	1,516.52	
Kidder Scholarship Fund	750.00	\$254,316.52
Land and Buildings		648,131.63
Inventories		250,250.08
		<hr/>
Total		\$1,152,698.23

These figures are taken directly from the Treasurer's report for the year ending June 30, 1915.

Explanations, relative to the Trust Funds as given by the Treasurer.

Coburn Trust Fund: This represents a legacy of \$100,000.00 received by the University under the will of Hon. Abner Coburn, late of Skowhegan, Maine. It is invested in Registered Bonds of the State of Maine, dated February 5, 1889, due July 1, 1917, bearing interest at 4% per annum, of the par value of \$100,000.00.

United States Land Scrip Fund: Under the provisions of an Act of the Congress of the United States, approved July 2, 1862, the State of Maine received two hundred and ten thousand acres of land from the sale of which the University has realized an endowment fund. This fund is represented by Registered Bonds of the State of Maine, dated June 1, 1889, due July 1, 1915, bearing interest at 5% per annum, of the par value of \$118,300.00.

The Levi M. Stewart Fund: This represents a fund received from Hon. David D. Stewart, executor and residuary legatee of Levi M. Stewart, late of Minneapolis, Minnesota, amounting to \$20,000.00. By special permission of the donor, this fund is temporarily invested as a part of the purchase price of the College of Law building in Bangor, Maine, known as Stewart Hall.

The David D. Stewart Fund: The gift of Hon. David D. Stewart of St. Albans, Maine, for the purpose of retiring notes of the University of Maine, representing the balance unpaid on the purchase price of the College of Law building in Bangor, Maine, known as Stewart Hall, amounting to \$13,750.00.

The Nehemiah Kittredge Loan Fund: This fund was established by Nehemiah Kittredge of Bangor, Maine, in 1886, and was originally \$600. It is under the control of the President and Treasurer

of the University and from it loans are made to needy students in the three upper classes. It is now invested in twenty-nine notes amounting to \$1,381.98, with the balance, amounting to \$134.54, in the Bangor Savings Bank.

The Kidder Scholarship Fund: The gift of Frank E. Kidder of Denver, Colorado, Class of 1879, providing for the award of a scholarship to a member of the Junior class, selected by the President and Faculty. This fund is \$750.00 and is deposited in the Bangor Savings Bank.

Lands and Buildings	Value or Cost
Alumni Field	\$ 1,000.00
Alumni Hall	33,979.80
Aubert Hall	78,350.99
Balentine Hall (partially completed)	23,882.80
Campus and Farm Lands	11,000.00
Carpenter Shop	2,491.43
Coburn Hall	28,203.80
Estabrooke Hall	6,000.00
Faculty Houses	26,235.65
Farm Buildings	25,955.14
Fernald Hall	30,000.00
Hannibal Hamlin Hall	55,707.62
Heating Plant	58,554.92
Horticultural Building	2,500.00
Infirmery	700.00
Janitor's House	1,000.00
Kappa Sigma House	5,400.00
Library	50,985.06
Locomotive House	200.00
Lord Hall	38,337.48
Mt. Vernon House	3,500.00
North Hall	3,500.00
Oak Hall	40,000.00
Observatory	500.00
Old Pumping Station	1,200.00

Power House	1,000.00
Stewart Hall	33,750.00
Stock Judging Pavilion	4,292.46
Store House (old Art Guild)	900.00
Store House	500.00
Waiting Room	226.97
Wingate Hall	25,143.93
Winslow Hall	45,207.85
Woodward Farm	3,000.00
Total	<hr/> \$648,131.63

INVENTORIES

Under this heading some of the principal values are given, and the others are grouped under the caption, "minor inventories."

Balentine Hall, Furniture, etc.	\$ 2,811.21
Biology, Apparatus, etc.	10,257.83
Chemistry	20,560.95
Civil Engineering	9,620.95
Commons	1,814.15
College of Agriculture:	
Equipment	21,246.30
Cows	6,085.00
Horses	2,685.00
Poultry	2,376.95
Other Live Stock	562.00
Electrical Engineering	8,794.32
Greek and Classical Archaeology	1,393.60
Hannibal Hamlin Hall	1,902.54
Inn	2,656.10
College of Law	1,425.00
Law Library	11,666.56
Library	62,620.64
Mathematics and Astronomy	4,253.00
Mechanical Engineering	23,794.48
Mechanics and Drawing	1,785.55
Military Science	520.62

Mt. Vernon House	1,240.72
Mt. Vernon House Annex	704.58
Museum	10,975.04
Oak Hall	1,458.24
Physical Training	1,825.33
Physics	8,046.64
Supplies for Heat, Light, Power Plant, etc.	3,049.03
Furniture and Fixtures	8,178.47
Minor Inventories	15,939.28

Total \$250,250.08

Inventory of Station on closing accounts, June 30, 1915:

Highmoor Farm	\$12,500.00
Holmes Hall	23,500.00
Aroostook Farm	23,000.00*
Incubator and Employees House	1,800.00
Poultry Houses	3,350.00
Apparatus, Laboratory Supplies, Library, and Agricultural Implements	56,503.00

Total \$120,653.00

INVENTORY, JUNE 30, 1915

University, not including Experiment Station	\$1,152,698.23
Experiment Station	120,653.00

University, regarded as a unit \$1,273,351.23

The State appropriations in Dr. Aley's administration have amounted to \$896,677.84.

Appropriations by the Maine Legislature for the College and University from 1876 to 1915-6. (Biennial sessions commenced in 1881-2.)

Year	Amount	Explanations and Remarks
1867	\$ 20,000.00	
1868	10,000.00	

*Including \$13,000 appropriated by the last legislature, to complete purchase of Aroostook Farm, available after July 1, 1915.

Year	Amount	Explanations and Remarks
1869	(28,000.00)	Unavailable, pending change of title to the college premises, authorized later by the town of Orono.
1870	50,000.00	\$28,000 reappropriated with \$22,000 additional.
1871	6,000.00	
1872	18,000.00	
1873	24,000.00	
1874	12,500.00	
1875	10,500.00	
1876	8,000.00	
1877	15,218.00	
1878	6,500.00	
1879		No appropriation granted. Tuition imposed by order of Legislature.
1880	3,000.00	
1881-2	3,500.00	
1883-4	13,000.00	
1885-6	12,400.00	
1887-8	34,600.00	
1889-90	30,000.00	
1891-2	24,500.00	Tuition made free by order of Legislature.
1893-4	12,000.00	
1895-6	40,000.00	
1897-8	40,000.00	Act provided \$20,000 a year for ten years. Tuition imposed by order of Legislature.
1899-1900	40,000.00	Under Act of 1897.
1901-2	40,000.00	Under Act of 1897.
1903-4	40,000.00	Under Act of 1897.
1903-4	35,000.00	Special appropriation. Tuition in agricultural courses made free by order of Legislature.
1905-6	40,000.00	Under Act of 1897.
1905-6	24,000.00	Special deficiency appropriation.
1907-8	220,000.00	

Year	Amount	Explanations and Remarks
1909-10	200,000.00	Act provided \$100,000 a year for four years. Tuition in engineering courses for out-of-the-State students made \$100 a year by order of Legislature.
1909-10	1,940.94	Special appropriation for printing in 1908.
1909-10	10,000.00	For purchase of Highmoor Farm.
1911-12	200,000.00	Under Act of 1909.
1911-12	3,000.00	For printing and binding.
1913-14	220,000.00	Act provided \$110,000 a year for four years.
1913-14	95,000.00	For buildings.
1913-14	3,000.00	For printing and binding.
1913-14	241.84	Printing deficit, 1912.
1913-14	10,000.00	Animal Husbandry Investigations, 1913-14.
1913-14	10,000.00	For purchase of Aroostook Farm.
1915-16	220,000.00	Under Act of 1913, for maintenance.
1915-16	25,000.00	Additional appropriation for maintenance.
1915-16	65,000.00	For buildings.
1915-16	12,436.00	Extension work in Agriculture and Home Economics.
1915-16	13,000.00	Balance on Aroostook Farm.
1915-16	10,000.00	Maintenance of Aroostook Farm.
1915-16	10,000.00	Animal Husbandry Investigations, 1915-16.
Total	\$1,941,336.78	

The above record does not include amounts expended by the State for expenses of legislative commit-

tees, trustees' fees and expenses, printing and binding, except as given in the table, instruction in Forestry, 1903 to date, and in forest nursery, 1913 to date, nor for the inspection work with which the Agricultural Experiment Station is charged by law, and the cost of which is maintained by the State, largely by fees.

This financial exhibit would be incomplete without a record of the bounty of the national government to the College and University, to which bounty the benefactions of the State have been, in a measure, responsive.

GOVERNMENT BENEFACTIONS

Land Grant Fund	\$118,300.00
Interest on Land Grant Fund, 1867-1916	338,107.51
Hatch and Adams Acts, 1887-1916	573,750.00
Morrill Act and Nelson Amendment, 1890-1916	795,000.00
Smith-Lever Act, 1915-16	32,436.00
Total	<hr/> \$1,857,593.51

The above does not include the salary of the Professor of Military Science and Tactics, paid by the United States from 1882 to date, except for a short period during and following the Spanish War, when no government officer was assigned to the University.

For a large part of the foregoing record of State appropriations and government benefactions, the writer is indebted to the kindly aid of Professor R. K. Jones, Librarian of the University.

It will be noticed how nearly evenly divided has been the support of the institution for forty-seven years, between the State and the Nation.

CONDENSED SUMMARY

State appropriations to College and University, 1867 to 1915-16	\$1,941,336.78
Government benefactions	1,857,593.51

Total from State and Nation . . . \$3,798,930.29

Other benefactions include:

Bangor subscription, approximately \$ 13,000.00

College site, gift of Orono and Oldtown 11,000.00

Coburn bequest, permanently invested 100,000.00

Levi M. Stewart Fund 20,000.00

David D. Stewart Fund 13,750.00

Nehemiah Kittredge Loan Fund 1,516.52

Kidder Scholarship Fund 750.00

Sundry individual gifts, for

Library, etc., estimated . . . 12,000.00 \$172,016.52

Total from sources indicated above . . . \$3,970,946.81

Interest on Coburn bequest 110,000.00

Total from all external sources* . . . \$4,080,946.81

Deduct:

Present inventory of University regarded

at a unit 1,273,351.23

Cost of maintenance from 1867 to 1915 \$2,807,595.58

Average cost of maintenance per year exclusive of invested funds, buildings, equipments, and internal receipts

58,491.57

*The above does not include receipts from tuition, incidentals, and other internal sources.



271 HALL

CHAPTER XXI

COLLEGE FRATERNITIES

RALPH KNEELAND JONES

THE first fraternity at Maine was established when but two classes had graduated and when the institution had been open less than six years. The time was opportune, for the enrollment was 121 and the fraternity material abundant. At this time Bowdoin had been open 72 years and had 167 undergraduates and six fraternities. Colby had been open 54 years and had 62 undergraduates and three fraternities.

One important factor militated against fraternities at Maine. This was the hostility of the classical colleges to the land grant colleges and the consequent reluctance of existing fraternities to enter them. At this time the only institutions established under the land grant act in which chapters had been placed were Cornell, Illinois, and Virginia Polytechnic, and no chapter had been established in any of the older state universities at so early a period of its life.

In view of the attitude of the Greek letter fraternities, it was natural for a group of men at the Maine State College to accept a charter from the Q. T. V. fraternity, founded at the Massachusetts Agricultural College in 1869. On February 28, 1874, David P. Penhallow, M. A. C., 1873, installed the Orono chapter of Q. T. V., the second chapter of that fraternity. The charter members were John I. Gurney, 1874; David R.

Hunter, 1874; Charles F. Colesworthy, 1875; Alfred M. Goodale, 1875; Edson F. Hitchings, 1875; George M. Shaw, 1875; and Sidney S. Soule, 1875.

The college authorities were inclined to look with doubt upon the fraternity idea, but a committee waited upon President Allen to give him information he desired. Dr. M. C. Fernald, then Professor of Mathematics and Physics, and himself a fraternity man, used his influence favorably. A statement of the principles and objects of the fraternity was laid before the trustees which proved satisfactory to that body.

The pioneer fraternity prospered from the start, but it did not remain long without opposition, for on September 25, 1875, the E. C. Society was organized by William T. Haines, 1876, and eleven associates. This society was formed with a definite purpose of obtaining a charter from a Greek letter fraternity. The endorsement was secured of prominent alumni of one of the leading eastern fraternities, but it soon became apparent that the prejudice against the land grant colleges was so great as to make success impossible in this or any other of the older eastern fraternities. The idea of a charter from a Greek letter fraternity, however, was firmly fixed, and an offer was declined of a charter from D. G. K., a fraternity which, like Q. T. V., had been established at the Massachusetts Agricultural College.

It so happened that one of the members of E. C., Newell P. Haskell, 1876, entered Cornell for graduate work and there became intimate with members of Alpha Sigma Chi, a fraternity established at Rutgers in 1871, with other chapters at Cornell, Princeton, St. Lawrence, and Columbia. At Mr. Haskell's sugges-

tion, correspondence was begun which led to the admission of the society into that fraternity in 1878. A year later Alpha Sigma Chi was united with Beta Theta Pi. This gave Maine a chapter of one of the leading western fraternities, and its presence proved later of material help to local societies in their efforts to secure admission to other Greek letter fraternities.

No other fraternity was organized until 1884, when the K. K. F. Society was formed, with fifteen members. The early policy of the Q. T. V. and Beta Theta Pi in regard to membership had differed, the former maintaining a chapter which usually went to 30 or more, while the latter restricted its membership to a considerably smaller number, rarely exceeding 20. Influenced by this policy, doubtless, the Beta chapter encouraged the organization of K. K. F., and although the number of undergraduates in 1884-85 was but 90, the new society was a success from its start. In 1886 it was granted a charter by Kappa Sigma, giving that fraternity its first chapter in the northeast.

By 1889 the number of undergraduates had increased to 130 and a fourth fraternity was organized, the S. I. U. Society, which entered Alpha Tau Omega in 1891. In an announcement of its establishment, *The Cadet* said: "Its beginning may be considered auspicious. It was manifestly evident that another society was needed in college."

The institution continued to grow so that by 1894-95 the attendance was over two hundred. In 1894 Omicron Epsilon Eta Pi was organized, and in 1895 Delta Rho, both with strong men. The former entered Phi Kappa Sigma in 1898 and the latter Sigma Chi in 1902. Iota Phi was organized in 1898 with an excel-

lent membership, and in 1901 it entered Sigma Alpha Epsilon.

The members of the local chapter of Q. T. V. had become dissatisfied with that fraternity as early as 1891. It had established a third chapter at New Hampshire College, then affiliated with Dartmouth, in 1881, and a few years later entered Pennsylvania State, Worcester Polytechnic, and Cornell, but the Worcester and Cornell chapters disbanded and that at Pennsylvania State entered Kappa Sigma. The lack of success of the extension policy had much to do with the dissatisfaction of the Orono chapter, which finally, in 1899, withdrew and immediately entered Phi Gamma Delta. Most of the Q. T. V. alumni have affiliated with that fraternity.

Phi Eta Kappa was organized in 1906 under favorable auspices, and Delta Kappa followed, in 1909. The latter united with Lambda Chi Alpha in 1913.

The early meetings of Q. T. V. and Beta Theta Pi were held in halls or rooms in Orono, but both fraternities sought permanent homes. On March 4, 1876, a proposition was made at an E. C. meeting to purchase the hall in the Stillwater Bank Building, a brick building with a granite front, which stood on the east side of Mill Street not far south of the present post office. The proposition was adopted on March 25, and a deed was executed in the name of six members of the society.

The members of the Q. T. V. Society were at the same time considering plans, and on March 25, 1876, a committee was appointed to wait upon the trustees to confer with them in regard to a location for a hall on the Campus. Consent was given and work was begun as soon as weather conditions permitted, and a two-story frame building was built where Coburn Hall

now stands, much of the work being done by members of the chapter. (1)

The idea of chapter houses which should serve as homes to members of the fraternities was under consideration at an early day. The Q. T. V. records of a meeting in the fall of 1877 state: "Some talk was made by Elwell (1878) about chartering the old farm house for a boarding house for some of the brothers who might like to get up a club," and at the following meeting the proposition was carried without dissent, but nothing came of it at the time.

At a meeting of Beta Theta Pi, April 23, 1881, upon motion of Charles S. Bickford, 1882, it was voted to start a chapter house fund. This grew to several hundred dollars. A committee was appointed to wait upon the trustees at the June, 1883, meeting in regard to a location upon the Campus, and their consent was given. A lot on the knoll below where the Phi Kappa Sigma house now stands was also offered by Eben C. Webster, 1882. Plans were prepared, but before work could begin the Orono Savings Bank, in which the funds were deposited, suspended, effectually blocking further progress for the time.

In the fall of 1884, a proposition was made at a Beta Theta Pi chapter meeting by James D. Lazell, 1887, that the chapter lease from the College the residence on the Campus then occupied by Professor A. E. Rogers. Later in the year the house was vacated and a ten-year lease arranged. The members of the chapter moved in during April, 1886. Upon the expiration of

(1.) The Q. T. V. hall which was originally located where Coburn Hall now stands was moved back to a line parallel with Holmes Hall to make room for Coburn. The society used the second floor for meetings, a room on the first floor being rented to the College for a recitation room. The hall was rented to Omicron Epsilon Eta Pi after the organization of that society and its meetings and those of Phi Kappa Sigma were held there until it was burned, February 12, 1901.

the lease, it was renewed with two conditions, of which one was that extensive repairs should be made by the chapter, and about \$1,000 was expended for this purpose. The second condition provided that upon its expiration the Betas might, if they desired, build a new house upon the site of the old one.

In the fall of 1886, Q. T. V. voted to raise a fund for a chapter house, the plan being to utilize the old hall in its construction. Some money was raised but not enough for the purpose, and the idea was abandoned for the time. In 1889 the chapter leased from the College the residence which it had voted to rent twelve years earlier.

The first house at Maine erected for a fraternity was the Kappa Sigma house, built by the College in 1895 under an agreement providing for purchase by the fraternity.

In 1895 Alpha Tau Omega rented the Paul Webster house, on North Maine Street, and bought it in 1908. Extensive improvements have been made.

The idea of building was kept in mind by Q. T. V., and a house was erected in 1897-8, the plan of utilizing the old hall being abandoned. The house was financed by members of the chapter, and the last of the indebtedness was discharged at the 1915 Commencement.

Sigma Chi bought the Joseph Treat house, on North Maine Street, in 1902, and made extensive improvements upon it.

The Maine legislature of 1903 passed an act authorizing the trustees of the University to guarantee loans for the erection of society houses upon the campus. All of the houses built since that time have benefited by this, and but few of them could have been built when they were without it. The Phi Kappa Sigma

house was completed in 1903, the Sigma Alpha Epsilon house in 1904, the Beta Theta Pi House in 1905, the Phi Eta Kappa and Theta Chi houses in 1908, and the Delta Tau Delta house in 1909.

Lambda Chi Alpha, in 1911, bought from Professor G. A. Drew his residence on College Street, adjoining the campus. In the fall of 1915 Sigma Nu began the construction of a house on the campus.

The eight fraternity houses on the campus already completed could not be duplicated in 1915 for a hundred thousand dollars. The three houses off the campus, including their lots, are valued at thirty thousand dollars. These houses have been built without any expense to the State. They accommodate over three hundred students. Without them the problem of housing students would have been exceedingly difficult.

The first sorority organized was Phi Gamma, in 1896. This society entered Delta Sigma in 1903 and that sorority united with Alpha Omicron Pi in 1908. Phi Alpha was organized in 1912 and entered Phi Mu the same year. Alpha Theta (local) was established in 1914.

At the College of Law the first fraternity was Gamma Eta Gamma, founded in 1901 by C. Vey Holman, 1902, and his associates. This fraternity has established chapters in other institutions, but the parent chapter became inactive in 1907. Sigma Beta Pi was established in 1902 and entered Phi Alpha Delta in 1908. Alpha Epsilon Rho (local) existed from 1904 until 1908. The Lex Club was established in 1906 and admitted to Phi Delta Phi in 1908.

The honorary fraternity of Phi Kappa Phi was founded at Maine in 1898 by members of the class of

1899. It was first called the Morrill Honorary Society but the present name was adopted in 1899. Chapters have been established in other institutions.

Other intercollegiate Greek letter organizations having chapters at Maine with the date of establishment are as follows: Alpha Zeta (agricultural), 1906; Alpha Chi Sigma (chemical), 1911; Tau Beta Pi (engineering), 1911; Sigma Delta Chi (journalism), 1915.

The university authorities have never found the fraternities the problem at Maine that they have been in some institutions. They have proved helpful in promoting the welfare of their members, morally and intellectually.

CHAPTER XXII

RESULTS EXPRESSED IN GENERAL TERMS

BY referring to the careers of individual graduates and non-graduates, it would be possible to present many interesting and impressive results attained in which they have been the prominent factors. This method, however, in the space of a chapter, would furnish only a partial and imperfect statement or record of the real service that has been performed. It seems better, therefore, to omit personal references and to present achievements or results in general terms.

This chapter then is designed to answer, briefly and in a very general way, the question, What has been accomplished by the College and University in the forty-eight years since the Maine State College received its first State appropriation?

As in all educational institutions the financial problem has been fundamental. On its solution, all other results have largely depended. The chapter on "Finances" sheds much light on this problem and on the manner in which it has been solved in the past years. It shows that the chief sources of revenue for this institution have been the State and the Nation in nearly equal amounts, and that their large benefactions have been supplemented to a certain extent by municipal and individual liberality.

In the chapter referred to, the condensed summary furnishes the following results:

State appropriations to College and University, 1867 to 1915-16	\$1,941,336.78
Government benefactions	1,857,593.51
<hr/>	
Total from State and Nation	\$3,798,930.29
Other benefactions, including the Coburn bequest	172,016.52
Interest on Coburn bequest	110,000.00
<hr/>	
Total from all sources	\$4,080,946.81
Deduct:	
Present inventory of University regarded as a unit	1,273,351.23
<hr/>	
Cost of maintenance from 1867 to 1915	\$2,807,595.58
Average cost of maintenance for year exclusive of invested funds, buildings and equipment	\$58,491.57

It thus appears that more than four million dollars have been invested in the Maine State College and the University of Maine. One of the achievements of those who have had the affairs of the institution in charge has been the raising of this very considerable sum of money, and especially the securing of it as needed, so that the institution should not be seriously embarrassed or involved at any time. While this latter accomplishment has not been entirely perfect, it has probably been as nearly perfect as human foresight, under the circumstances, could have made it. Large credit is certainly due those who have managed the institution's financial affairs for doing their work so efficiently and so satisfactorily.

Now with four million dollars and more expended, two questions arise, namely: what has the institution to show for this expenditure, and what has been

accomplished by it? In answer to the first question, it should be said that, as indicated by the inventory, it has in invested funds, in buildings and equipments more than a million and a quarter dollars. The amount remaining, not represented by tangible assets is a little more than two million, eight hundred thousand dollars. Has this larger sum been equally as well invested as the one and one-fourth million dollars put into bonds, buildings and equipments? The answer to this question is practically the answer to the second question above, namely, What has been accomplished? A portion of the two million, eight hundred thousand dollars has been invested in what may be termed experimentation, investigation, or research, while the larger portion has been expended along strictly educational lines. What is invested in experimentation and research at the same time that it is enlarging the boundaries of human knowledge may bring back money returns to the State, the Nation or the world. What is devoted to strictly educational service is not expected to bring back direct money returns, except to individuals through their greater earning power, but rather to be invested in or built into the life and character of the recipients.

Some results from the expenditure of money by this institution along each of these lines will now be briefly considered, beginning with that devoted to experimentation and research. A certain amount was done along the line of experimentation in the early days of the College, but the more fully systematized experimental service came in with the establishment of the Maine Agricultural Experiment Station under the Hatch Act of 1887. From its organization in 1888, this station has carried on investigations of large value to the agricultural interests of the State, and through them to the State itself.

The most striking illustration of the value, from the financial point of view, of the Station's service is afforded by the development of the potato industry in Aroostook County. The following lucid statement furnished in response to my request by Dr. Charles D. Woods, Director of the Station, presents the nature of the problem whose solution was sought, and the manner in which it was successfully solved.

"Potato rot, due to a parasitic fungus, is one of the worst enemies the potato grower in cool latitudes has to contend with. It was the cause of the famine in Ireland in the middle of the last century and at different times has been disastrous in Maine.

"About twenty-five years ago it was found that copper salts had a retarding effect upon the fungus that causes this disease. Coöperative experiments were made at the suggestion of the Maine Agricultural Experiment Station in the early 90's, and an experiment made in 1895 on small plots at the College, showed conclusively that Bordeaux mixture properly made and properly applied would control to a very great extent this disease. These experiments led to a limited use of Bordeaux mixture in the State.

"The years 1897 and 1898 were particularly bad in northern Maine, in many instances the crop being a practical failure because of the rot. This led to the Station's undertaking definite experiments with Bordeaux mixture in Aroostook County. These experiments were watched by large numbers of people with great interest. It seemed to them to involve altogether too much work and too much expense to apply Bordeaux mixture to potato plants for it ever to be adopted in the county. However, at harvest time that year the Station had practically the only full crop of potatoes that was grown in Aroostook County.

"With the progressiveness which is characteristic of the Aroostook County farmers, they speedily learned the lesson. In 1898 there were probably about 1,000 pounds of copper sulphate used on potato crops in Aroostook County. The next year there were nine car-loads. Since that time there has been a continued increase in the amount used in Aroostook County of copper sulphate, which is the essential ingredient in the manufacture of Bordeaux mixture, the specific for late blight.

"The fact that it was possible by the proper application of Bordeaux mixture to insure the crop against the subsequent blight, gave confidence to the farmers in Aroostook County and they have continuously increased their potato planting since that time. It also has led indirectly to better methods of culture and to far higher fertilization. A dozen years ago it was estimated by competent judges not interested in the Experiment Station that the result of this work with Bordeaux mixture was worth that year to Aroostook County more than a million dollars.

"Of course no single thing can account for the development of a great business in any given area. At the time when these experiments were undertaken in Aroostook County, direct railroad communications, by means of the Bangor and Aroostook R. R., had just begun. The road was extended to Houlton in 1894, the following year to Caribou and to Fort Fairfield, a year later to Limestone, and in 1900 to Van Buren. The potato industry in Aroostook County could not have developed without this railroad, for transportation is as important as production. To the providing of transportation, to the Station's showing that potatoes could be grown without danger of rot,

and to the hustle of the people, is to be attributed the fourfold increase in acreage and yield in ten years. Doubling and even trebling of land values is also a corollary. No one conversant with the facts would hesitate to say that the value of this one phase of potato experimentation to Aroostook County has been worth to the State of Maine more than the total appropriations that have been made, both State and National, for the maintenance of the University of Maine.

"While this is the most spectacular and striking, it is only one of the very numerous modifications and developments of farm practice that have come about as a result of the work of the Maine Experiment Station."

Desiring the testimony of some resident of Aroostook County on the relation between the Station and the large and profitable increase in the potato industry of that County, the writer addressed a letter to Mr. William A. Martin of Houlton, from whom he received the following reply:

"It would be difficult to value in dollars and cents the work of the Maine Experiment Station in Aroostook. In 1898 the Station began a series of experiments upon the farm of John Watson and Company at Houlton, intending to show the value of Bordeaux mixture in controlling the late blight of potatoes. The work proved to be highly successful, and the ideas of the Station were speedily adopted by the leading farmers of Aroostook. To this work, perhaps more than anything else, the prosperity of Aroostook is due. Shipments of potatoes from Aroostook in 1900 exceeded slightly 4,000,000 bushels; the 1913 crop exceeded 20,000,000 bushels. The County increased in value from approximately \$18,000,000 in 1900 to \$45,000,000

in 1915. The work with Bordeaux mixture was followed with various studies, all of which successfully tended to put potato raising upon a higher plane, so that now the prospect of even a partial crop failure is very remote. Drop from use the ideas advocated by the Station, and growing potatoes in Aroostook would soon pass to a crop of minor importance."

Potato growing in Maine is, by no means, limited to Aroostook County. Farmers in other sections of the State have profited by the experience of Aroostook farmers in controlling potato blight. If, then, the whole State were taken into account, the value and money returns named for a single county would have to be largely increased.

Another service of the Station of very considerable practical utility has grown out of its investigations in poultry breeding and management during the past eighteen years. While other causes have contributed to the wonderful development of the poultry industry in the State, the work and teachings of the Station have been among the prominent causes of this development. Notwithstanding this has come to be regarded as one of the great agricultural industries, it is doubtless true that only the beginning of its possibilities has yet been realized.

One other series of experiments still in progress shows the intimate relation between the work of the Station and practical agriculture. In 1913, the average yield of oats for the country as a whole was reported to be thirty bushels per acre, and for the State of Maine, forty bushels per acre. Moreover, the value of the 1913 oat crop in Maine was given by the Department of Agriculture on December 1 of that year as \$3,080,000. In the experiments in the cultivation of

oats, recently conducted by the Station, the following results were obtained in testing fifteen varieties of the so-called "Pure Lines of Oats Bred at Highmoor Farm." The average yield per acre of the fifteen varieties for the two years 1912 and 1913 was 83.7 bushels, and for the year 1914, an exceptionally favorable year, 98.2 bushels. A limited amount of the seed of these several varieties has been available for introduction.

The way has thus been opened by the Station, and the practice shown by which Maine farmers can largely increase their yield of oats per acre. If they were to realize only the Station's yield for the normal years 1912 and 1913, it would imply the doubling of the oat crop and an increased annual value in Maine of more than \$3,000,000. While so large a gain could not be made at once, it is attainable in brief time, as the Station has clearly demonstrated. When the right practice for the attainment of large results has once been fully determined, the time element comes in, in extending such practice, precisely as in the development of the potato industry in Aroostook County.

Just here the extension work of the College of Agriculture finds its helpful place and function. The better practices in agriculture developed by the Experiment Station are of little value unless heeded and applied by farmers. It is the function of the county demonstrators to make available to the farmers of the State whatever knowledge or practice the Station has proved to be of value along agricultural lines. In other words, these county demonstrators form the connecting link between agricultural investigators and the farmers who are to profit by the results of applied agricultural investigation.

Three illustrations have thus been given of the manner in which the Station, primarily "seeking truth for truth's sake," is proving itself of very large value to the State through its teachings applied in practical agriculture. It has also been shown how, through coöperation with the extension service, these teachings can be and are made available in practical farm life. Other illustrations, of similar financial import, might be cited, but these are sufficient to establish the validity of the claim previously mentioned and often made by those understanding the facts, namely, that the Maine Agricultural Experiment Station has been instrumental in bringing into the State more money, many times over, than has been expended in forty-seven years on the College and University.

The foregoing statements relative to the Station represent it largely on the financial side. If limited to this alone, the view would be narrow indeed. Through its relations to pure foods, to pure seeds, to fertilizers true to name or to claim, and in almost numberless other ways, it touches beneficially and helpfully the life of individuals and communities. Its service must be regarded as among the useful and valuable achievements and results from establishing the College and University.

In this connection, it should be stated that the College of Technology has inaugurated a work of investigation and experimentation along other than agricultural lines, and has started an extension service, all designed to be helpful to other industries precisely as the Station is helpful to the industries associated with agriculture.

The third accomplishment of this institution has been in the educational field, and it is in this field that

its largest and most important service has been rendered to the State, to society, to the world.

In Chapter X, it has been shown that between four thousand and five thousand young men and young women have received largely their intellectual training and preparation for their life-work at this institution. Of these, more than half have completed full courses of study and been graduated. Less than half, classed as non-graduates, have received like training except that their periods of study and instruction, instead of extending through full courses, have been limited for the most part to periods ranging between one and three years. Students in the summer school and in short winter courses have not been included. If they were added, the whole number would be nearly six thousand. For the purposes of this chapter, however, only those in the longer courses are considered. As indicating the present service of the University, it should be remembered that more than twelve hundred students are now under training in its classes.

It should not be forgotten that the average earning power of men and women is largely increased by college training. It is rarely the case that there is no increase in earning capacity and on the other hand, this increase may amount to a ratio of two, three, four or even ten-fold in specific instances.

From information that has come to the writer at various times relative to the salaries of our technically trained graduates and many of the non-graduates as well, it is safe to say that many receive salaries ranging between one thousand and six thousand dollars a year, and a few have incomes much in excess of this amount. Applying the principle of increased earning power through college training, to the four thousand men and

women under consideration, it is easy to see that the simple money value of their training would be represented by one, two or more million dollars per year. It is not, however, on the plane of money value to the recipients or to society that this third division of our subject is to be treated, but rather on the higher plane of intellectual and moral values which do not admit of computation in financial terms. To these higher values the College and University have been making annual contributions through nearly half a century.

The graduates and non-graduates as well have been largely engaged in increasingly progressive and developing industries, agricultural, mechanical, electrical, chemical and others along allied lines—industries which have to do with the material upbuilding of states and nations. Their work has been constructive, such as makes communities richer in economic and social values. Among these graduates and non-graduates, some have engaged in business, some in educational fields of service and others in so-called professional life. So far as the writer is aware, practically all have allied themselves with the constructive, upbuilding, and economic forces of society and so have turned their training to good account, not only for themselves, but for the communities in which they reside.

The money which the State and the Nation have invested in them has been devoted to their preparation and equipment not only for efficiency of service but for service of high grade. It has been devoted not only to the sharpening of intellectual faculties but to the toning up of the fibres of moral life. Money thus invested is not expected to come back directly in form to its contributors, but it does come back indirectly, and multiplied many-fold in value, to society, through the set-

ting forward of its important enterprises, and through the promotion of a finer citizenship and the development of the higher civic virtues.

Expressed in such terms, the value of our higher institutions of learning is simply incalculable. Expressed in such terms, the service of the University of Maine does not admit of computation in dollars and cents. It can be measured only in terms of its real contribution to the essential interests of society. Measured by such standards, the University of Maine, it is believed, has not been wanting in what it has contributed to the work of the world of a character both useful and worthy.

The three results presented in this chapter are herewith summarized in condensed form:

1. More than four million dollars have been secured and expended in and through the Maine State College and the University of Maine. Of this sum approximately one-third has been invested in interest bearing bonds, and in buildings and equipments now in service.

2. A portion of the remaining two-thirds of the money secured has been invested in or through the Maine Agricultural Experiment Station, a part of the University. While the primary function of the Station is investigation, and through investigation the enlarging of the boundaries of agricultural knowledge, its teachings have brought large money returns to farmers and to the State, as shown by the examples cited. The by-products of experimentation broadly applied have proved to be of immense value.

3. The money which has been invested in educational service has contributed to the greater earning power of individuals, but its large and even greatly

multiplied return to society has not been directly in form, but in intellectual and moral values, in character and in life—values which, in financial terms, defy computation. “The price of wisdom is above rubies.”

CHAPTER XXIII.

IN MEMORIAM

THIS chapter is written in commemoration of officers of the institution who died in service or not long after their connection with the University had ceased. Although in some instances brief biographical sketches are given, the design is to emphasize the period and character of service to the College or University.

Of the six trustees for whom tributes are written, four were members of the Board when the College was opened to students in 1868, and three of the four served, in succession, as Presidents of the Board. All six belonged to the early period of the college history. Among the trustees no longer living, are many who rendered the College important and even conspicuous service, whose names, from limitations of space, do not appear in these notices, but who are alike worthy of special remembrance. Their names will appear in a separate Honor Roll.

"To live in hearts we leave behind
Is not to die;
To lead their lives to heights sublime
Is immortality."

ABNER COBURN

Hon. Abner Coburn of Skowhegan, was a trustee of the college from 1867 to 1879. During the entire period, he served as President of the Board. His

sound judgment as a man of affairs rendered his service of the highest value.

In the President's portion of the College Report for 1885, the following reference to his relations to the College appears: "The earnest and abiding interest manifested by Ex-Governor Coburn in this institution renders his removal by death from further participation in its affairs, a loss seriously felt by all connected with the College as the loss of a warm personal friend. After serving twelve years as President of the Board of Trustees, it is true his official relations with the College were dissolved, but so active were his sympathies with it and for it, they did not cease to manifest themselves, even down to the closing hours of life.

"The magnificent contribution [as it seemed at that time] which he made in his will to the further endowment of the College will stand as a lasting memorial to the generosity of his nature and to his sympathetic interest in the cause of industrial education. When his benefaction shall become available, it cannot fail to enhance the usefulness of the College, and in the permanent good it will accomplish it cannot fail to prove an enduring monument to his memory."

His benefactions to other institutions were not less noteworthy. Governor Coburn possessed a large and generous nature and liberally devoted the wealth which he was permitted to acquire in ways of helpfulness to his fellowmen. In the truest sense, he honored the State which honored him, and hence, will continue to be held in lasting and grateful remembrance.

WILLIAM P. WINGATE

In the Trustees' report for 1883 to the Governor and the Executive Council, written by Hon. Lyndon Oak

of Garland, President of the Board of Trustees, the following appreciative reference to Mr. Wingate, about to retire from the Board, was made: "At the late annual meeting of the trustees, Hon. William P. Wingate (of Bangor) who had been elected to the presidency of the Board in 1879, and who had been re-elected to the position at each annual meeting since, declined another re-election in anticipation of the close of his term of service at an early date. Mr. Wingate was largely influential in the movement that resulted in the location of the College at Orono, and has been one of the trustees from the beginning of active efforts to provide the necessary buildings for its development. He was appointed to the Board by Governor Chamberlain and commenced service for the College in April, 1867.

"His term of service, which has extended through a period of nearly sixteen years, reaches back farther than that of any other officer now connected with the College with a single exception.

"The period of Mr. Wingate's connection with the College has been a period of construction. Numerous buildings have been erected—some of them large, involving large excavations and heavy foundations of stone—grounds have been graded and streets constructed and gravelled and provided with heavy stone culverts.

"Such varied and important operations must be conducted under responsible direction. Mr. Wingate's large experience in the direction of labor, his wide acquaintance with practical builders, and with the value of materials entering into the construction of buildings, have made him a prominent and useful member. He has been a member of the Executive Committee of the Board from the first, and for much of the time its chair-

man, and a prominent member of nearly every building committee through the years of his connection with the Board. His excellent judgment has also made him a valuable adviser in many things pertaining to the interior policy of the College. He has performed his full share in laying the foundations of an institution that has been described by the United States Commissioner of Education as 'eminently practical in its purposes and methods.' "

The services of Mr. Wingate, so clearly stated, were of such nature that their value did not cease with his life. He was faithful to every trust and to all college interests. The buildings erected under his careful supervision attest his fidelity and constitute for him enduring memorials.

LYNDON OAK

Hon. Lyndon Oak of Garland served the College as a trustee from 1867 to 1889. Within this period, he acted as Secretary of the Board from 1871 to 1883, and as President of the Board from 1883 to 1889.

A tribute to Mr. Oak prepared by the writer appears in the "History of Garland, Maine," published in 1912. The History was written by Mr. Oak, but it was not published until several years after his death. By permission, this tribute is here largely reproduced.

"My acquaintance with Hon. Lyndon Oak of Garland, Maine, was of a quarter of a century's duration and my friendship for him, strengthened by a constantly increasing admiration of his noble traits of character, covers the same period.

"My principal association with him was in connection with the Maine State College, of which he was a

trustee for more than twenty years, and of whose Governing Board he was for several years President.

"In the early history of the College, the occasions for meetings of the Board of Trustees were frequent and even under ordinary conditions, three meetings a year were usually the minimum number. It is not in my remembrance that Mr. Oak ever missed attendance upon a meeting while connected with the Board. This statement, at first, may seem of slight consequence, but when we reflect that a meeting of the Board of Trustees besides involving anxious thought and careful deliberation, meant for him usually, a carriage drive of not less than forty miles, with loss of time for two or three days from his private business, and all this without compensation, we are prepared to recognize an admirable but truly characteristic trait of Mr. Oak, namely, unflinching fidelity to duty. This fidelity, together with a gentle forbearance and a patient persistence, served the College in many an exigency in which more flashy qualities would have failed.

"His services were especially valuable in connection with legislative matters. The soundness of his judgment, and the confidence reposed in him rendered his recommendations of great weight before legislative committees—a fact always apparent in the final votes. It was, however, as a kind, thoughtful and sagacious counsellor in the general affairs of the College that his services were most appreciated.

"As Acting President of the College in its first three years and subsequently as President during the last ten years of Mr. Oak's membership in the board of control, I received from him many letters pertaining to matters of vital importance to the institution, not a few of which were necessarily of confidential nature. After re-read-

ing, I can say in regard to them just what all who knew him would expect, namely, that there was not a line in them all which was not alike creditable to his head and to his heart. In them all was evidence of cool judgment and of a hopeful and confident spirit. In them all, the motive was definite and clear to consult the true interests of the institution and of the State, and to secure only the result which was just and right.

"His retirement from the Board, I have regarded a misfortune to the College. It came about after three appointments for the period of seven years each, in virtue of what seems to me an unwise statute limitation of age, which makes ineligible for appointment as trustee of the State College a man who has passed his seventieth birthday. The loss to the College by his retirement was the gain to another State institution, to whose Governing Board, he was immediately appointed by the Governor of the State. Ripe in experience, with faculties unimpaired, he rendered the State under this new appointment a large measure of useful service.

"From a somewhat close association with Mr. Oak for more than two decades, in mutual efforts in behalf of the Maine State College, I am certain that no one can overestimate the sterling qualities which he possessed and which endeared him to a constantly widening circle of devoted friends, and made his name a synonym for honesty, truthfulness and loyalty to the right. The remembrance of this association is to me a fragrant memory, inasmuch as it serves to enlarge my conception of the dignity of human nature, and to lead to the conviction that there are men whom we can easily conceive to have been made in the image of God."

SAMUEL F. DIKE

Rev. Samuel F. Dike, D. D., of Bath, was a trustee of the College from 1867 to 1879. That he enjoyed early educational advantages of a high order was evident from his broad scholarship and fine culture. That he was a man beloved where best known was attested by the fact that he ministered in holy things most acceptably in the same church and in part to the same people for two generations.

His associates in the Board, at the time of the opening of the College, although admirably adapted to the service to which they were appointed, were essentially men of affairs. Rev. Mr. Dike, on the other hand, was a man devoted to schools and interested in all educational movements. By his associates he was at once recognized as the scholarly member of the Board and hence, as occasion arose, he was assigned to duty in accordance with this recognition. While he was a valuable member of the Board in relation to the general affairs of the College, his usefulness was most conspicuous in the development of the courses of study and in whatever pertained to the literary and scientific features of the institution.

The writer's earliest recollection of Dr. Dike is associated with the drafting of the initial course of study for the College. It has been a satisfaction to remember that this outline bore the impress of his scholarship and personality. Not only did he have to do with the first course of study, but during the twelve years in which he served as a trustee, he was a special adviser when any modification of the curriculum was deemed necessary, and it should be said that modifications made under his sanction were always in the line of true development.

He is pleasantly recalled as a man of kindly impulses, of generous nature and of large heart. His fine mental training and ripe experience contributed in no uncertain way to the useful service which he rendered to the College, as in other fields they contributed to the enjoyment, the refinement and the moral and spiritual uplift of his fellowmen. As a wise counsellor for the College and as one who served it wisely and well, his memory will be cherished by all its friends.

JAMES C. MADIGAN

Hon. James C. Madigan of Houlton was a trustee of the College from 1869 to 1879, and died in service. Mr. Madigan was a lawyer of prominence, and brought to his new duties a well trained mind, grace and forcefulness of speech, a broad and generous nature, and the advantages of a pleasing and impressive personality.

These qualities were placed at the service of the College on many occasions. Reference has been made in an early chapter of this history to a question at issue in 1869 and 1870 between the town of Orono and the State of Maine relative to the deed given of the White and Goddard farms which constituted the site of the new college. Through Mr. Madigan's power of clear statement and of persuasion, he was a highly influential factor in the settlement of this question, and thus of making available to the College, in the latter year, a conditional appropriation on the part of the State of \$50,000.

On other occasions also, he rendered to the institution largely appreciated services, notably, by addressing legislative committees in its behalf and at times, by addressing in meetings open to the public in the Hall of Representatives at Augusta, a large proportion of the

legislative body. These were meetings of great interest and they bore fruit in subsequent legislative action.

Mr. Madigan's facility of expression, his comprehensive grasp of the subject in hand, and his impressive earnestness, made him a strong advocate of any cause which enlisted his support, and this was particularly true in pleading the cause of the College which had his profound interest and full sympathy.

In sharing at times the hospitality of his home, where the family life was ideal, the writer formed his truest and best conception of what an American home should be. He and others have not forgotten the lesson, and thus in unnumbered and subtle ways Mr. Madigan's influence has made itself felt in other homes and in other hearts. He will long be remembered, not only for urbanity of manner and graciousness of spirit, but for intellectual and moral worth—in a word, for those sterling qualities which make for character, and through character for influence and potency in life.

ALEXANDER M. ROBINSON

Hon. Alexander M. Robinson, resident for a large part of his life at Dover, Maine, was born in Bangor, Maine, April 25, 1814, and died in Dover, October 13, 1898, at the advanced age of eighty-four years.

His early life was largely one of self-dependence and limited opportunities. Attendance as a boy upon the schools of his native town, private study by firelight and one term at Foxcroft Academy constituted the sum of early educational advantages. A teacher at sixteen, a law student at twenty, a practicing lawyer at twenty-three, he commenced early to bear his part in the work of the world. As a lawyer, he held a leading position in his county and in the State. As a counsellor, he was

safe and judicious, and always advised his clients against litigation that was possibly avoidable.

Although constantly engaged in exacting professional duties, he found time to serve his county, his State and the general public in various positions of trust and responsibility. For three years, he was chairman of the Board of County Commissioners for Piscataquis County. For seven years, he was County Attorney. He served in both branches of the Maine Legislature, in the Senate in 1854 and in the House in 1868. In the latter body, he was largely instrumental in securing one of the early appropriations for the State College. For a long period he was President of the Piscataquis County Bar Association, and for the last eleven years of his life was President of the Piscataquis Savings Bank.

One of the public enterprises in which he was a prominent factor was the building of the Bangor & Piscataquis Railroad. He was chairman of the meeting which organized the railroad company. With Hon. Hannibal Hamlin, President of the road, he devoted to it the entire summer of 1868, mostly in adjustment of claims of parties along the roadway. This service involved travel on foot several times over the entire line.

For forty-eight years he was a trustee of Foxcroft Academy and for twenty years President of the Board. During the forty-eight years he missed but three of the meetings of the Board. His fidelity to any cause which once enlisted his heart was with him a prominent characteristic.

It was with such training, such touch and contact with the life around him, such identification with industrial, professional and educational interests, that Mr. Robinson came into the Board of Trustees of the

State College. His entrance was as successor to Hon. James C. Madigan of Houlton. Mr. Robinson's term of service commenced in 1880 and continued to 1887. In the early part of this period, as shown elsewhere, conditions in the State were extremely unfavorable for obtaining appropriations in support of the College. Only the most judicious administration of its affairs would enable its friends to secure needed buildings, meet its increasing liabilities, and continue its career of development. In this crisis, and in all his relations to the College, Mr. Robinson, in common with his associates, displayed the truly judicial spirit. He exercised wise foresight and needed skill in dealing with public sentiment, and the executive force which at that time and under the conditions was indispensable to success.

As a member of the Executive Committee, he was conversant with all of the affairs of the College and gave to them his best thought and his mature judgment. For his devoted services, timely, appropriate and helpful, the institution and all its friends owe to Mr. Robinson a lasting debt of gratitude. In the full recognition of this obligation, we present our tribute of respect and honor to his memory.

AN HONOR ROLL

The record of the trustees with their terms of faithful service constitutes an honor roll. This special honor roll, however, includes the names of trustees, no longer living, who rendered the institution valuable service in their day, but whose names do not appear in the very limited list of early trustees for whom personal tributes have been written. Like the latter group, they are worthy of fullest recognition. Their names appear in the order of entering upon service.

Hon. Nathaniel Wilson of Orono; Hon. George P. Sewall of Old Town; Hon. Isaiah Stetson of Bangor; Hon. Nathan Dane of Alfred; Hon. Thomas S. Lang of Vassalboro; Hon. Stephen L. Goodale of Saco; Hon. Samuel F. Perley of Naples; Hon. Samuel L. Boardman of Augusta; Hon. Sylvanus T. Hincks of Bucksport; Hon. Caleb A. Chaplin of Harrison; Hon. Luther S. Moore of Limerick; Hon. Emery O. Bean of Readfield; Hon. Z. A. Gilbert of East Turner; Hon. Daniel H. Thing of Mt. Vernon; Capt. Charles W. Keyes of Farmington; Hon. E. E. Parkhurst of Presque Isle; Gen. Russell B. Shepherd of Skowhegan; Gen. Charles Hamlin of Bangor; Rutillus Alden, Esq., of Winthrop; William H. Strickland, Esq., of Bangor; Hon. Fred Atwood of Winterport; Hon. Rufus Prince of South Turner; Hon. Benjamin F. Briggs of Auburn; Greenville J. Shaw, Esq., of Hartland; Hon. Elliott Wood of Winthrop.

CHARLES FREDERIC ALLEN

A very brief biographical sketch and a tribute to the memory of Rev. Dr. Allen appear in the chapter relating to his administration as President of the College.

All who knew Dr. Allen and who appreciate the finer and higher qualities of human nature will not cease to cherish and honor his memory.

WALTER BALENTINE

In the portion of the College Report for 1894, written by Dr. Harris, then President of the College, the following appreciative reference to Professor Balentine appears: "The most important change in the faculty was caused by the death of Walter Balentine, the professor of agriculture, February 26, 1894. Wal-

ter Balentine was born at Waterville, September 21, 1851; prepared for college at the Classical Institute of that place, entered the sophomore class of the Maine State College in 1871 and was graduated in 1874. The same year he entered upon a post-graduate course of study at the Wesleyan University, Middletown, Conn., where he remained for two years. During this time, he held the position of assistant chemist in the agricultural experiment station of that University, the first experiment station organized in this country. He went from Middletown to Germany, where he spent two years, one at the University of Greifswald, and one at the University of Halle. On his return to America, he became assistant chemist in the U. S. Department of Agriculture at Washington, later professor of chemistry in the Kansas State University, and in 1881, professor of agriculture at the Maine State College. In his preparation for the work of instruction and investigation, he was excelled by few men who had gone into similar lines of work.....As a teacher he was eminently successful.....Professor Balentine's influence over the students was unusually strong; without assertion of authority, he exercised great control."

President Lord of the Trustees thus refers to Professor Balentine in his report: "He brought to his duties as professor of Agriculture superior fitness, rare ability, and a noble manhood. Remarkably successful in his teaching, ever loyal to his work and the College, he died when his influence was strongest, beloved and mourned by all who knew him."

The nature of the service which Professor Balentine rendered to the College is indicated by the following outline: Instructor in Agriculture, 1881-2; Professor of Agriculture, 1882-7; Professor of Agriculture and

Agriculturist to the Experiment Station, 1887-94. The writer's remembrance goes back to Professor Balentine's student days as well as to the years of his subsequent career. He heartily subscribes to the words of commendation of Dr. Harris and of Hon. Henry Lord of the Trustees, adding this simple thought: Professor Balentine was a thoroughly manly man, and hence by students and associates was held in high esteem and affection.

FRANCIS LEROY HARVEY

Francis Leroy Harvey, M. S., Ph. D., was Professor of Natural History in the Maine State College from 1886 to 1900, and Entomologist in the Experiment Station from 1893 to 1900.

An estimate of Professor Harvey as a student and teacher of science, and as a man, written in 1900, the year of his death, forms an appropriate tribute to his memory. From the portion of the College Report for 1900 by Dr. Harris, President, the following extract is taken: "Professor Harvey was a man of broad education. At an early age, he received the degree of B. S. from the Iowa Agricultural College, where he had won unusual distinction as a student and had rendered some service as an instructor. He was for many years a member of the faculty of the University of Arkansas. While there his vacations were spent very largely in explorations and collecting trips, which yielded the material for numerous scientific papers that made him well known as a careful, conscientious and brilliant student in the field of botany, and more especially in that of entomology. He came to Orono as professor of natural history in 1886 and at once took an important place in the scientific life of the institution.

"Professor Harvey was an accurate scholar, of retentive memory, and unusual power of stating his knowledge in an interesting way. His devotion to his work was complete. As an investigator, he was patient, trustworthy and prolific. Scientific journals show many products of his work. The list of published papers which he was accustomed to include in his biennial reports was always an important one. His experiment station work has been ranked very high by those best qualified to judge. As an instructor, he was enthusiastic and sympathetic and succeeded in interesting many in his department and in arousing the deepest interest in a few. He always had one or two students in his laboratory devoting themselves especially to the subjects which he taught. As a man he was eminently friendly, sincere and transparent."

The writer concurs most heartily also in the brief statement by President Lord of the Trustees, in the same report: "The University lost a most able and conscientious member of the faculty by the death of Professor Francis L. Harvey. He served the institution with fidelity and success for fourteen years, holding ever the esteem, respect and love of his associates."

HOWARD SCOTT WEBB

Howard Scott Webb, M. E., E. E., graduated from the Maine State College in 1887. His subsequent relations to the College and University are indicated by the following outline: Instructor in Shop-work, 1887-96; Registrar, 1888-9; Secretary and Registrar, 1890-94; Instructor in Mechanical Engineering, 1896-9; Professor of Electrical Engineering, 1899-1905.

Two brief records of appreciation appear in the College Report for 1905, the former by President

George Emory Fellows, and the latter by Hon. Henry Lord, President of the Board of Trustees. They are herewith given: "Professor Howard S. Webb of the Department of Electrical Engineering, died of heart failure June 12, 1905. Professor Webb had been in ill health since March and had not recovered sufficiently to hope that he could undertake the work at the beginning of the present year. He had accordingly asked that he be granted a year's leave of absence in the hope that, with continued rest and out-of-door life, he might recover sufficiently to take up his work with his accustomed vigor and interest, but the end come suddenly. No one who knew Professor Webb has a word to say of him other than in praise. He was one of the most popular members of the faculty, was regarded by his students as an unusually excellent teacher, always clear in his explanations and enthusiastic to such a degree that students under him partook of his own enthusiasm. However ably the vacant position may be filled, the loss of Professor Webb will be felt severely for years to come."

"Professor Webb was a graduate of the University in the class of 1887, and for many years was connected with the department of Electrical Engineering. He was respected and beloved by the students in his department and by all others who knew him well. The University of Maine owes much to the faithful, loyal, conscientious service of Professor Webb."

In his acquaintance and association with Howard Scott Webb, from his student days to the end of his life, the writer came to regard him as a man who could be depended upon, whose life rang true, and hence held him in high esteem and admiration. He was intellectually keen and morally strong and exemplified the

rugged virtues which make for integrity of life and high character.

GILBERT MOTTIER GOWELL

The relations of Gilbert Mottier Gowell, M. S., to the College and University are indicated by the outline herewith presented: Farm Superintendent, 1882-7; Instructor in Practical Agriculture, 1891-3; Professor of Animal Industry, 1893-1908; Agriculturist of the Experiment Station, 1896-1903; In charge of Poultry Experiments in the Experiment Station, 1905-1908.

The following appreciative reference to Professor Gowell's services is given in the University Report for 1908, by President George Emory Fellows: "The death of Professor Gilbert M. Gowell removed from the State one of the most able, cultured, and enthusiastic workers in the field of experiment and investigation. The University and the whole State of Maine have had the advantage of Professor Gowell's work and advice for more than twenty years, and for many years to come, his influence will not cease to be felt for good in the lines of dairying and poultry culture. He had carried on successful experiments with poultry for many years. Although Professor Gowell had voluntarily withdrawn from his active connection with the University, as teacher and experimenter, all his friends had looked forward to many years of active work for him and to benefits through his advice in his public addresses.

"He was an unusually successful and pleasing public speaker on the topics in which he was interested. He was perhaps more widely known throughout the United States and abroad than any other experimenter with poultry, and the fame of the poultry work at the Maine Experiment Station has been inseparably connected

with the name of Professor Gowell. His funeral was held in the Chapel. The entire military body served as an escort from the house to the Chapel and on the return."

As intimated above, Professor Gowell had wide acquaintance in the State and a large body of friends to mourn his loss in common with his associates in the University.

HORACE MELVYN ESTABROOKE

Horace Melvyn Estabrooke, as a young man, matriculated at the Maine State College in 1872, and was graduated in 1876. His subsequent relations to the institution are indicated in this simple record: Horace M. Estabrooke, M. S., M. A., Professor of Rhetoric and Modern Languages, 1891-5; Professor of English, 1895-1908.

In October, 1908, Professor Estabrooke met with an accident which resulted in his death two days later, October 30. Subsequently, appropriate memorial services were held in the University Chapel. At these services, the writer was asked to present an address, especially on the relations of Professor Estabrooke to the University. From this address the following data are taken.

Horace Melvyn Estabrooke was born in Linneus, Aroostook County, Maine, January 20, 1849, the son of Leverett Evans and Lucinda Homestead Estabrooke. His early education was of the type obtainable in district schools half a century ago. This early training was supplemented by four terms of study in Houlton Academy, now Ricker Classical Institute. Then followed four years of college training. In college, he was a substantial student, earnest, energetic, hardwork-

ing, faithful, doing each day the tasks of the day thoroughly and well.

After graduation, he pursued French and German under native teachers, elocution under private instructors, carried on non-resident post-graduate studies in the Illinois Wesleyan University and in other ways sought not only enlargement of his intellectual horizon, but ample preparation for his life-work along specific lines. This life-work already well begun, was to be continued in the field of education. His experience in this field, before coming to college work, is thus indicated: He taught fifteen terms in common schools, several years as principal of high schools, and then eight years, from 1883 to 1891, as First Assistant Master in the State Normal School at Gorham, Maine. In all these positions, he acquitted himself with ability and acceptance. He possessed the teacher's art and so was masterful in his profession.

As already stated, in 1891, he was called to the chair of Rhetoric and Modern Languages in the Maine State College. In this professorship, he continued four years, when he was made Professor of English and as head of this department he remained thirteen years or until the fateful day of the accident.

In this connection, it is but just to say of Professor Estabrooke that he possessed those qualities of mind and heart that made him an illuminating teacher and a judicious guide in the fields of literature, in which fields he rendered doubtless his highest educational service.

As a member of the College faculty, he was companionable, sympathetic, generous, and always ready to bear his part. In committee work he was painstaking to the last degree.

His educational field was not limited to class-room walls. By his active connection with educational associations and educational movements, by his public presentation of literary, patriotic, religious and other subjects, he was recognized as an educator in the broad sense of the term. By his townsmen he will be remembered for his good citizenship and for his interest and coöperation in whatever related to the civic welfare.

JOSEPH WILLIAM CARR

Joseph William Carr, Ph. D., was Professor of Germanic Languages from 1906 to 1909.

In the College Report for the year last named President Fellows makes the following reference to Professor Carr and to the circumstances of his sudden death: "Professor J. W. Carr, head of the department of German, died suddenly as he was ascending the steps of Coburn Hall to attend one of his classes. He had had the misfortune to sprain his ankle some weeks before and was walking on crutches. The cause of his death was stated to be fatty degeneration of the heart. Whether the sudden attack was brought on by the unusual exertion of walking on crutches is of course unknown. Professor Carr ranked high as a scholar and was a member of several learned societies. He had been specially prominent as a writer and an officer in the American Dialect Society. His death causes a serious loss not only to the University of Maine with which he was immediately connected, but to the world of scholarship."

Hon. Edward B. Winslow, President of the Trustees, thus presents his tribute: "The sudden death of Professor J. W. Carr was a severe blow not only to the department of German of which he was the head, but

to the University as a whole. Although not one of the oldest professors in the institution, he had, during his stay, endeared himself in the hearts of all, and by his work had raised his department to a state of efficiency second to none in the country."

The writer's acquaintance of three years with Professor Carr ripened into a congenial friendship and into a large appreciation of his fine scholarship and his high moral worth.

WELTON MARKS MUNSON

In his relations to the College and University, the records show that Welton Marks Munson, M. S., Ph. D., was Professor of Horticulture and Landscape Gardening from 1891 to 1893, Professor of Horticulture and Horticulturist of the Experiment Station from 1891 to 1906, and Pomologist in the Experiment Station from 1906 to 1907.

The following account of Professor Munson is taken with slight modifications from *The Livingston Republican* of September 14, 1910, a paper published at Howell, Michigan: "Welton Marks Munson was born in the township of Howell, Michigan, April 8, 1866, and died in Howell, September 9, 1910, the last of four sons.

"He was educated at the rural school, Howell High School, and Michigan Agricultural College from which he was graduated in 1888. He was assistant in horticulture to Dr. Bailey at Cornell University from 1888 to 1891, when he was appointed to the new department of horticulture at the State University of Maine, at Orono, which position he held till 1907, when he was elected head of the department of horticulture in the University of West Virginia at Morgantown.

"Michigan Agricultural College conferred on him the degree of B. S. in 1888, of M. S. in 1892, and Cornell University gave him the degree of Ph. D. in 1901.

"Professor Munson was a member or fellow of several scientific and honor societies in the United States, and, in appreciation of his original investigations, he was elected an honorary member of the Royal Horticultural Society of England.

"He was author of many bulletins on horticultural subjects, a contributor to horticultural journals, and to the *Cyclopedia of American Horticulture*. He represented the University of Maine at the Pan American Exposition. He was a painstaking and tireless lecturer and worker in Farmers' Institutes.

"During his college life, he promoted the work of the Young Men's Christian Association among the students. Later he was a member of the Congregational Church, Orono, Maine, and for several years was superintendent of its Sunday School."

In addition to this brief biographical sketch, the writer desires to express his personal appreciation of the fine service which Professor Munson rendered to the College and University. A single illustration must suffice. On the Campus, young trees had been set in fair abundance. In a very few years, Professor Munson, as Landscape Gardener, made important transformations in the way of beautifying the Campus, transformations which are valued even to the present day. His skill and good taste and sound judgment will not be forgotten. For his refined qualities of head and heart which endeared him to all, he will be held in sacred remembrance.

CHARLES HAMLIN

The official relation of Gen. Charles Hamlin, son of Hon. Hannibal Hamlin, to the College and University is thus simply expressed: Trustee, 1887-1888; Lecturer on Insolvency, 1898-1902; Lecturer on Bankruptcy and Federal Procedure, 1902-1911.

The following brief biographical outline is taken from the General Catalogue of Bowdoin College, published in 1912. Gen. Hamlin's year of graduation from Bowdoin College was 1857. "Charles Hamlin, A. M., 1860; LL. D., Univ. Me., 1909; b. 13 Sept., 1837, Hampden, Me. Lawyer, Orland, Me., 1858-1861. Major, 18th Me. Vols., 1862; Asst. Adj.-Gen., 1863; Bvt. Brig.-Gen., 1865. Lawyer, Bangor, Me., 1865-1911. U. S. Register Bankruptcy, 1867-78. Reporter of Decisions, 1888-1904. Maine Leg., 1883-86; Speaker, 1885-86. Lecturer, Bankruptcy, Univ. Me., 1899-1911. d. 15 May, 1911."

In his busy life, Gen. Hamlin found time to bear his part in philanthropic movements and in the enterprises of general and civic welfare. His fidelity to obligations once assumed is illustrated by his twenty years' service as President of the Eastern Maine Hospital, and his forty-two years' service as Trustee of the Penobscot Savings Bank, or in other words, from its organization in 1869 until his death.

Gen. Hamlin was a man who could be depended upon and whose word was as good as his bond. He was especially discriminating in his knowledge of men, and well understood how to estimate them. This faculty was of large service to him in legal matters, and also gave him a peculiar fitness for such a position as the Speakership of the Maine House of Representatives,

in which position he acquitted himself with signal ability and acceptance.

In referring to him as one of the founders of the University of Maine College of Law and as one of the lecturers in it, Dean Walz thus fittingly speaks of Gen. Hamlin: "A true friend, a discriminating and sympathetic critic, an inspiring example to teachers and students," and "in all respects and at all times a high-minded citizen."

Gen. Hamlin possessed generous impulses, a genial nature, fine poise, and the other distinguishing qualities which mark the true gentleman. He did honor to the family name and will continue to share the family distinction. For his stalwart qualities, for his life of service and of intrinsic worth, Gen. Hamlin will be held in lasting esteem and honor.

FOREST JOHN MARTIN

Forest John Martin, LL. B., was a Lecturer and Instructor in the College of Law of the University of Maine from its organization as shown by the following schedule: Lecturer on Pleading and Maine Practice, 1898-9; Lecturer on Maine Practice, 1899-1901; Instructor in Law, 1901-2; Resident Lecturer on Common Law Pleading and Maine Practice, 1902-12.

Mr. Martin was born in Newport, Maine, September 10, 1867. He graduated from the Maine Central Institute of Pittsfield in 1886, and from the Law School of Boston University in 1890, receiving the degree of Bachelor of Laws.

A year before his graduation from the Law School, he passed the bar examinations and was admitted to practice in the courts of Maine. In 1890, he opened a law office in Clinton and began the practice of a profes-

sion in which, in later years, he became prominent and influential, winning the reputation of being one of the ablest lawyers in the State of Maine.

In 1894, he came to Bangor and continued the practice of law, associated with George H. Morse, Esq. In 1897, this firm was dissolved and Howard M. Cook, Esq., became his law-partner and thereafter Martin and Cook were known as a distinguished law firm to the date of Mr. Martin's death, May 9, 1912. Mr. Martin was a prominent member of the Penobscot Bar Association. In 1907-8, he served the city of Bangor as representative to the State Legislature. Of this body, he was a highly efficient member, and gave promise of much larger prominence in State affairs, had his life been spared.

As a trial lawyer, he was reputed as skillful in cross-examinations and masterly in his pleas. His general practice was large and lucrative. As a man, he was genial and kind, and his death was the occasion of general and genuine sorrow.

This brief tribute of respect to his memory may fittingly close with the resolutions offered by the College of Law.

"RESOLUTIONS OF RESPECT

"Whereas, Death has removed from our midst our beloved friend and instructor, Forest J. Martin, a leading member of the Penobscot County Bar, a representative of the City of Bangor in the councils of the State at Augusta, and an able and learned lecturer on Common Law Pleading and Maine Practice in the University of Maine College of Law, since its foundation in 1898, therefore be it

"Resolved, that by his death the bar of this State has lost one of its ablest and most conspicuous members.

"Resolved, that by his loss the State has been deprived of a valuable and efficient legislator, a skillful debater and a representative who had always at heart the growth of the city of Bangor and the welfare of the people of the State.

"Resolved, that by his departure from our midst, we as faculty and students of the University of Maine College of Law have lost a colleague and a lecturer who was at once a teacher and a friend as shown by his numerous acts of kindness and by his ever ready support of the activities of the student body.

"Resolved, that a copy of these resolutions be sent to the family and that the same be printed in the *Maine Law Review*, the *Maine Campus*, and the local newspapers.

For the University of Maine College of Law.

W. E. WALZ, Dean,
L. I. HARVEY, President Senior Class,
FRANK POWERS, President Junior Class,
F. M. LIBBY, President First Year Class.

ALFRED BELLAMY AUBERT

The record of Professor Aubert's connection with the College and University consists of a single line: "Alfred B. Aubert, M. S., Professor of Chemistry, 1874-1909." The statement that this period of thirty-five years was one of unbroken, faithful and appreciated service is a high tribute to his memory. It is a testimony to his fidelity to duty once assumed. In the later years of his life, it was a rare privilege, which he enjoyed and valued, to teach chemistry to the sons of men whom he had trained in chemistry in the earlier years.

Alfred Bellamy Aubert received his academic train-

ing at Cornell University. When he came to the Maine State College in 1874, he was a very young man. He gave to this institution the best years, and indeed, nearly all the years, of his active life after arriving at manhood.

He was a man of fine acquisitions in his special field of study, of quaint humor, of gentle and at the same time virile nature, of broad sympathies, and of large heart. He was unobtrusive, modest, diffident almost to bashfulness, and yet responsive in a high degree to every confidence reposed in him and to every trust and obligation which devolved upon him. He measured up with great completeness to all expectations of him in life's responsibilities, and so lived the well-rounded life. He made friends of all who came into association with him and so is mourned with genuine sorrow, a sorrow which the writer deeply shares.

As indicated, his retirement from the University was in 1909. He passed the three remaining years of his life with his wife and his brother in New York City. After his death, commemorative services were held in the University Chapel at Orono, at which Professor Allen E. Rogers, for twenty-five years a close friend and associate, paid a beautiful and touching tribute to his memory.

In the following lines, the high regard in which he was held by faculty and students finds brief expression: "Alfred Bellamy Aubert began his work in this institution as Professor of Chemistry on February 5, 1874; on September 1, 1909, he resigned from his professorship; on November 12, 1912, he died.

"For thirty-five years he gave the University his best endeavors, and has left upon it the impress of a personality which merits high commendation. He was a man

of scholarly attainments and most genial temperament. He possessed in an unusual degree the respect and love of his students, and the friendship of his associates on the Faculty.

"The members of the Faculty pay tribute to his memory, and express to his family the fullest sympathy. We place upon the records of the Faculty our appreciation of his services at the University of Maine.

Committee	{	WILBUR F. JACKMAN,
		RALPH K. JONES,
		JAMES S. STEVENS,
		James N. Hart."

ELIZABETH ABBOTT BALENTINE

Although Mrs. Balentine was not engaged in classroom work, her association with the faculty and students was close and intimate for a period of nearly twenty years. Her relations to the College and University are indicated by the following record: Secretary to the President, 1894-1906; Secretary of the Faculty, 1896-1911; Secretary of the University, 1911-12; Registrar, 1912-3.

The *Maine Campus* for February 11, 1913, furnishes in large part the data relative to Mrs. Balentine, herewith presented.

Mrs. Elizabeth Abbott Balentine was born July 26, 1855, at Norridgewock, Maine. Her father was John F. Abbott, later a prominent lawyer of Boston, Mass. Her mother was the sister of Dr. Charles F. Allen, President of the Maine State College from 1871 to 1879. Mrs. Balentine received her education, principally, in the public schools of Newton, in Abbott Academy at Andover, and in private schools in Boston, Mass., and Brooklyn, N. Y.

In 1882, she was married to Walter Balentine, Professor of Agriculture in the Maine State College. Their happy married life was of but twelve years' duration when in 1894, it was cut short by the untimely death of Professor Balentine. Nineteen years later, Mrs. Balentine was stricken with heart failure, and the end soon came, January 20, 1913.

Mrs. Balentine, by her fidelity and skill in the performance of her duties, had endeared herself to the student body, as well as to the faculty and by all her loss was severely felt.

Funeral services were held in the University Chapel January 22, 1913. A eulogy was pronounced by Dr. Robert J. Aley, President of the University.

In *The Campus* appeared tributes to the memory of Mrs. Balentine by Dean James S. Stevens and Dr. Abram W. Harris, also Resolutions expressive of esteem and affection, bereavement and sorrow, by the student body and by other organizations and associations.

Of these Resolutions, all very fitting and appreciative, only those in behalf of the faculty are herewith submitted: "The niece of the first president of the College, the wife of one of the earliest and most respected professors, the secretary to the president and faculty, the university registrar—no one knew the University better nor served it more faithfully than Elizabeth Abbott Balentine.

"As the members of the faculty, we wish to put on record our appreciation of her character and services, and to express the sense of personal loss which comes to every one of us. Her industry will be our inspiration, her courage our cheer, and her unselfish life will compel our admiration while memory endures."

Presented by Dean Hart for the Faculty.



ELIZABETH ABBOTT VALENTINE

CHAPTER XXIV

REFLECTIONS AND REMINISCENCES

THIS chapter is to be written with a free hand, and to be made up of such facts and incidents and in such order as memory shall present the material to consciousness.

To begin at the beginning, that means forty-seven years ago: When we three, the writer, his wife and little daughter, came from Dover, Maine, to Orono in 1868, the journey was made in two days. With several trunks, boxes of books and other baggage, we came by stage on the first day from Dover to Bangor, stopping on the way at East Corinth for dinner, and arriving at the Penobscot Exchange in Bangor between six and seven o'clock in the evening. The next forenoon we came forward by the Veazie Railroad from Bangor to Stillwater with all our possessions, and inasmuch as for the three years of our married life my wife and I had not been housekeeping, we had no household furniture to cumber the moving.

On reaching Stillwater near noon, we were taken by conveyances from the college farm directly to the house which was to be our home for the next ten years. This was known as the Frost house, one of the two farm houses on the college grounds, and located on the site of the present Beta house. There we commenced housekeeping on September 1, 1868. While fitting up the house and getting it in order, our temporary home was with Mr. and Mrs. Perez Graves,

our nearest neighbors on the side toward Stillwater. Mention is made of an event so unimportant as that of moving from Dover to Orono in order to direct attention to the facilities of transportation as they existed at that time in eastern Maine compared with such facilities at the present day.

The European and North American Railway, now a part of the Maine Central system, was under construction, but it was a year or more later that the formal opening of this road from Bangor to Vanceboro occurred. The Veazie Railroad from Bangor via Stillwater to Oldtown, a distance of twelve miles, was the first steam railroad built in the State and one of the earliest in the United States. It served the College at the opening of the institution and for a short time thereafter, but on the completion of the other road, extending through eastern Maine and connecting with the larger system, the Veazie Railroad, remembered for its early and useful service, was discontinued. Later, the building of the Bangor and Aroostook Railroad added largely to the transportation facilities of northern and eastern Maine. It is clearly noticeable that every development of the State along material lines has reacted favorably upon the interests and service of the College and University.

Among the many remembrances of the early years of the College, none are more grateful to me than those associated with the President of the Board of Trustees, Ex-Governor Abner Coburn. His benevolences were done, not to be seen of men, but always quietly and unostentatiously. A simple illustration may be given. The time was Wednesday evening of Commencement week, 1876, and the place, the town hall of Orono, on occasion

of a concert by Clara Louise Kellogg, assisted by the Mendelssohn Quintette Club of Boston. The audience was assembling. No sooner had I passed to my seat, than I received notice that Governor Coburn wished to see me. On my responding to this summons, Governor Coburn drew from his vest pocket a roll, from which he selected two one hundred dollar bills and one fifty dollar bill and passed them to me, saying: "You can put that into the library." With no more formality he was accustomed to render financial aid where he deemed the object worthy.

Recalling the valuable services in the Board of Trustees of such men as Ex-Governor Coburn of Skowhegan, Hon. Lyndon Oak of Garland, and others easy to name, brings to mind the fact that through a statute limitation of age, the institution has been deprived several instances of the service of men at just the time when that service was most efficient and valuable. This fact raises the question whether the statute, involving such limitation, is not one of doubtful utility.

The larger benefactions of Governor Coburn were unheralded. The addition of one hundred thousand dollars to the endowment fund of the College was by provision of his will. In this connection, I have had the satisfaction of believing that a brief personal visit to Governor Coburn in his home at Skowhegan, resulted in substantial value to the College. With the facts submitted, the reader can draw his own conclusions. It came about in this way: A few years after his retirement from the Board of Trustees, through the statute limitation of age, it was rumored that the Ex-Governor was in feeble health. Recalling our past associations and his many kindnesses, I had a strong desire to see him once more, and accordingly went to

Skowhegan for that purpose. The short call which I had designed extended through two hours before he would permit me to come away. In the meantime, he had informed me that the College would be remembered in his will. As an effort had been making, with his approval and promise of aid, to add one hundred thousand dollars to the endowment fund, the impression left on my mind was that he had provided for the full amount in his will already made, although, in our conversation, this sum was not named in direct terms.

Two or three weeks later, he had occasion to modify some of the provisions of his will on account of reductions in value of certain western land in which he was interested. When some months later his will was probated, it appeared that in the modifications made, the item before that of the State College and the item following were each reduced by fifty thousand dollars, while the one hundred thousand dollars assigned to the State College remained intact.

Whether there was any connection between the visit, with what he had given me to understand relative to his will, and the retaining of the one hundred thousand dollars, unchanged, I shall never know. I have, however, entertained the belief that the implied connection existed, and have rejoiced that I made the visit, not only on account of its probable value to the College, but even more on account of the memories connected with it which time has made sacred.

The legislative experiences of the first twenty years of the college history gave rise sometimes to pleasing and at other times to painful remembrances. The period from 1878 to 1883 was peculiarly trying.

The institution has never been the football of poli-

ticians, but at times it has suffered from unsettled and unfortunate political conditions in the State, and never more than in the period under notice. It had to live down these adverse conditions and then a brighter era dawned upon it.

The legislature of 1879 not only granted no appropriation, but as heretofore stated, imposed tuition at a most inopportune time. In the legislative session of 1880, it will be remembered, an attempt was made to break down the courses of study, and an appropriation of but \$3,000 was granted. In 1881-2, the appropriation for the two years was but \$3,500. By 1883, conditions in the State were becoming normal again, and thereafter, the general attitude toward the institution and the appropriations for it were of much more satisfactory character. The brighter day was beginning to dawn upon it.

From the stand-point of the present, it is not easy to comprehend how difficult it was in those abnormal days to obtain even the small appropriations that were secured. By way of illustration, an abstract is made from the legislative proceedings when the college resolve was under consideration in the session of 1881, as reported in newspapers of that period.

“On motion of Mr. Berry [Senate Chairman of the Committee] resolve in favor of the Maine State College of Agriculture and the Mechanic Arts was taken from the table.” This was on March 8, 1881. “Mr. Berry said: ‘It had been the unanimous report of the Committee to appropriate \$2,500 this year for the College and \$1,000 next year, reducing the appropriation thus because they thought that this institution could gradually become self-sustaining, not at once, but in time.’ ” How wide of the mark!

An attempt was made to make the diminutive appropriation a part of the endowment fund, by an amendment. The amendment was adopted by the Senate, and the resolve laid on the table. On March 9, 1881, the resolve was taken from the table, and an amendment was proposed reducing the appropriation from \$3,500 to \$2,500. The amendment was defeated, 16 votes to 6. Another amendment was proposed, to the effect that no further appropriation should hereafter be made. This was also defeated, 15 votes to 5, and the resolve was again tabled.

House of Representatives, March 15, 1881. "Resolve appropriating \$3,500 for the Agricultural College was taken up and was opposed by Messrs. Folsom of Oldtown, Bradstreet of Bridgton, Harding of Waldo, White of Levant, and Cook of Lewiston, and favored by Messrs. Hatch of Bangor, Staples of Parsonsfield, Ritchie of Winterport, Strout of Portland, Haskell of Turner, and Tarbox of Phillips.

"Mr. Folsom moved to indefinitely postpone, and on this motion the yeas and nays were ordered and taken, resulting in" 74 votes in the affirmative to 62 in the negative. The appropriation was apparently lost by this vote in the House.

When, on the morning of March 16, the writer learned of this adverse action in the House, he was unable to go to Augusta that day. He had on his hands three classes in addition to the executive duties, and moreover it was more than doubtful whether the small appropriation, only a fraction of what was asked for and absolutely needed, could be saved. After exchanging telegrams during the day with friends in the legislature, he decided to go to Augusta by the evening train and make effort to win back the lost ground.

What happened the next morning relative to the college resolve is herewith stated:

House of Representatives, March 17, 1881, morning session. "Mr. Bradstreet from the Committee of Conference on the disagreeing vote of the two branches on the resolve in favor of the Agricultural College, reported a disagreement. The report was accepted" and the House voted to adhere to its former action in indefinitely postponing the resolve.

This vote which seemingly barred all hope was really the key to further progress. By active interviews during the morning session of the legislature, it was found that several members of the House, on the fuller information given them, were disposed to change their vote on the college resolve, in case it could be brought again before them. The getting of the resolve again before the House, however, was regarded as a very doubtful problem.

The Speaker of the House was Hon. L. H. Hutchinson of Lewiston, a firm and dependable friend of the College. At the noon recess, the Speaker was sought at Hotel North and the situation explained to him. His reply was: "I have not felt so badly about anything else this session as the defeat of the college resolve but I see no way in which it can be brought again before the House. The vote to indefinitely postpone was two days ago and it is too late now to move a reconsideration."

The writer withdrew from the Speaker's room, somewhat disheartened but still working on the problem, his great anxiety giving direction to his thoughts. In crossing the corridor, what seemed to be a solution instantly flashed through his mind and returning he said: "Mr. Speaker, this morning, as you will recall, the

Committee of Conference between the two branches of the legislature made a report and the House voted to adhere to its former action of indefinitely postponing the college resolve. Is there any reason why a motion cannot be made to reconsider the vote whereby *at this morning's session*, it was decided to adhere to the former action?" Mr. Hutchinson replied: "That will do it. It may be unusual, but it is not unparliamentary. It is not too late to reconsider the vote of this morning and that will open up the whole question. Now get your friends to work as quickly as possible." The friends were ready and gave good account of themselves at the afternoon session, as appears from the following record:

Afternoon session, March 17, 1881. "On motion of Mr. Morrill [Anson P., a former Governor of the State] of Augusta, the clerk was charged with a message to the Senate, requesting the return of resolve in favor of the Agricultural College."

"The resolve was returned, [passed to be engrossed in the Senate] and Mr. McKusick of Calais moved to reconsider the vote whereby the House [in the morning session] voted to adhere to its vote indefinitely postponing the measure."

"This motion was advocated by Messrs. Morrill of Augusta, Dickey of Fort Kent, Thatcher of Bangor, Staples of Parsonsfield, Haskell of Turner, Rowell of Hallowell, and Flint of Dover, and opposed by Messrs. Folsom of Oldtown, Harding of Waldo, Cook of Lewiston, and Chadbourn of Waterboro."

"On motion of Mr. Cook of Lewiston, the yeas and nays were ordered and taken, resulting in" 65 votes in the affirmative and 59 votes in the negative. Thus the motion to reconsider prevailed.

"On motion of Mr. McKusick of Calais, the House

voted to recede from its vote of indefinite postponement." A damaging amendment was proposed, but was rejected by a vote of 63 to 51. "The resolve was then passed to be engrossed in concurrence with the Senate." "On motion by Mr. Thatcher of Bangor a motion to reconsider was voted down."

Thus after the resolve had been twice indefinitely postponed in the House, it was called back by strictly parliamentary procedure, and finally passed in both branches. It was the writer's pleasure, before leaving Augusta, to take the resolve to the Governor for his signature, which, immediately given, placed it and the small appropriation which it carried beyond further jeopardy.

It should not be understood that appropriations for the College generally were so difficult to obtain. The case cited was an extreme case. After the dawning of the brighter era, the changed attitude toward the College made relatively easy the securing of reasonable appropriations. Those representing the interests of the institution, at times, found it almost a pleasure to be accounted accepted members of the "third branch of the legislature."

In closing this reference to the abnormal period from 1878 to 1883, I desire to bear grateful testimony to the unswerving fidelity of the friends of the College, the remembrance of which transforms what otherwise would be a painful recollection into a pleasant reminiscence.

With the Maine Legislature still in thought, we cannot forget the great advantage accruing to the institution as our own graduates became members of the legislative body. When one such graduate was there, we recognized the value of his presence; and as the

numbers increased they were regarded as centres of needed and useful information in regard to their *Alma Mater*, and hence potent agencies in her interest.

Very many pleasant remembrances are connected with the baccalaureate services or with the persons who kindly responded to invitations to give the sermon or address. All these occasions left very distinct impressions from their nature and associations and now come thronging back in memory.

The special reminiscence now in mind relates not to the discourse but to the man who gave it. In 1863-4, I was pursuing post graduate studies in Cambridge, Mass. The Sunday afternoon services at Appleton Chapel, always interesting and impressive, were conducted at that time, in the main, by the Reverend Doctor Andrew Peabody. Once a month, however, the service was in charge of the Reverend Thomas Hill, D. D., President of the University. Nearly a quarter of a century later, while Dr. Hill was ministering to a church in Portland, Maine, it was my privilege to invite him to give the sermon at a baccalaureate service of the Maine State College. He was entertained at the President's house on the Campus at Orono. Before his arrival, there may have been some little solicitude lest the smaller children might fail to acquit themselves with the decorum and dignity due a former President of Harvard University.

If that were the case, the solicitude was soon dispelled when Dr. Hill took the youngest member of the family in his arms, and entertained him by reciting to him a lot of "nonsense jingles" which he had composed for his own grandchildren. When Dr. Hill paused for a moment, the little fellow, fascinated, looked up into

his face and said: "I wish I could make up such *stuff* as that." If Dr. Hill were shocked, he gave no sign, but entered heartily into all the interests of the children and proved himself a delightful guest to all the family.

On Monday morning, he was to take the early train, between six and seven o'clock, from Orono. Two hours earlier he was out botanizing on the campus, where he was delighted to find sweet vernal grass in abundance and where he made other collections. He was as enthusiastic as a child over the richness of the local flora. His interests seemed to be unlimited and universal. Mention is made of this early morning incident as illustrating the quality and fibre of the man who in his younger years could work his way through Harvard University, and in his later years attain to the high honor and service of its presidency.

With very many pleasant recollections there came back others tinged with sadness or perhaps freighted with sorrow.

The first event of the type now in mind occurred in 1870, when John Jackson, a member of the second class, lost his life by drowning in the Stillwater River. Mr. Jackson was a good student, a graduate of the Farmington Normal School, a teacher of experience and a man of high mental and moral worth. He had been assisting in the haying on the college farm through the day, and in the early evening, with some of his mates, went into the Stillwater River at a point opposite to or a little above what is now known as the Beta House. Missing a ford in the river, he sank into deep water and apparently was attacked by cramp, and before his situation was realized, it was too late to save him. The search for his body until near midnight and the resumed

search at early daylight the next morning will not be forgotten by those who participated in it. His only immediate family friend was his mother, who resided in Montreal, Canada, and who was unable to come to the burial, but did come to Orono a few weeks later to visit his final resting place in the cemetery across the river from the College. The headstone at his grave bears the following inscription:

John Jackson
Aged 26 years
Drowned at Orono
July 19, 1870

"I know that my Redeemer liveth."

Erected in memory of a good and faithful
teacher by the members of his school
in Dennysville.

It is not difficult to read between the lines. Nearly alone in the world, making his own way to an education, he had won the hearts of his pupils and they in turn had honored themselves in honoring his memory.

In the history of the College and University, other students have lost their lives in the treacherous Stillwater River, and thus sorrow has been brought to other bereaved homes and to other stricken hearts.

In the same cemetery near the grave of John Jackson are two small headstones side by side, one marked

Stella
Died February 15, 1884
Age 3 years, 3 months, and 26 days.

The other marked

Baby
Died February 20, 1884
Age 1 year, 9 months, and 27 days.

These were the sweet and beautiful children of Lieut. and Mrs. Edgar W. Howe, Lieut. Howe at that time being under assignment as military officer at the Maine State College. The baby boy followed Stella in five days, and the parents were heart-stricken. Several years later, Lieut. (now Colonel) Howe returned to Orono to visit the little graves, so pathetic in memory. The military officer has no permanent abiding place, and so these little graves are still in Orono. As years go by, and friendly hands strew flowers on the graves of the departed who rest in Riverside Cemetery, let not the graves of John Jackson and Stella and Baby be forgotten. They are now in our sacred keeping as later they will be in the sacred keeping of those who shall come after us in the years of the future.

Among the cheerful memories which have proved sources of great satisfaction, are those connected with the ten delightful years in which I served the University as Professor of Philosophy. The burden of responsibility which the President of an institution always carries whether he will or not, was no longer on my mind. I had rallied somewhat from the long years of overwork. The courses which the department offered were all or nearly all elective, hence I felt that the students in my classes were there because they wanted to be there. Their receptive attitude, their thoughtfulness and courtesy, made teaching most enjoyable. Now that my teaching days are over, I can say that the classes which I especially enjoyed were those in Psychology and Moral Philosophy. The work in Laboratory Psychology I also found particularly fascinating and it is still recalled with the liveliest interest.

If, instead of limiting the backward look to ten

years, it were extended over fifty years, or the teaching period of my life, very much that has just been written of the enjoyment of teaching would equally well apply. I have found the classroom pleasant from my earliest experiences. The kind and generous and often deferential response to my efforts at instruction has served for constant inspiration, and so the remembrance of my half-century's service in the educational field awakens associations which are most welcome and grateful.

The reminiscences recorded in this chapter are but a fraction of those in the field of consciousness, clamoring for recognition. The most of them have to be rigorously ruled out. The allowed list, however, would be incomplete without a reference to the one who has been most helpful to me in the entire service which I have sought to render to the College and University.

Imperfect as that service has been, it would have been much more imperfect, but for my wife's generous aid and constant coöperation. Especially was this true when our children were young and much time was required for their care and training. Assuming largely these responsibilities, she set free my own time and thought and energy for the institution which claimed her love and loyalty not less than it claimed my own. In time of anxiety or discouragement, her clear mental vision and sound judgment have been sources of strength, and where data for judgment have not existed, her intuitions have generally proven safe guides. In times of doubt, we have shared each other's confidence and relied on the Infinite Wisdom for guidance.

As our long association in the service of the Maine State College and the University of Maine draws near to its close, it is a supreme satisfaction to recognize



A VIEW ON THE CAMPUS

publicly the important part which my wife has borne in all this service.

We can ask nothing better for this institution as it faces the future than that, as in the past, the rich blessing of Heaven may continue to rest upon it, in the years and centuries which are before it.

To the graduates and former students to whom this volume is dedicated, we unite in extending, as a closing word, the assurance of our continued and abiding interest and regard, and our hope and trust that the really best things of life may be theirs, and that their pathways may ever be illumined by the light from above, that light "that shineth more and more unto the perfect day."

APPENDIX

STATE BENEFACTIONS

College and University appropriations, 1867-1908	\$832,718.00
Maintenance and buildings, 1909-12	400,000.00
Printing deficit of 1908	1,940.94
Printing and binding, 1911-2	3,000.00
Maintenance, 1913-6	440,000.00
Buildings, 1913-4	95,000.00
Printing and binding, 1913-4	3,000.00
Printing deficit, 1912	241.84
Additional for maintenance, 1915-6	25,000.00
Buildings, 1915-6	65,000.00
Extension work in agriculture and home econom- ics, 1915-6	12,436.00
Highmoor farm, 1909	10,000.00
Animal husbandry investigations, 1913-4	10,000.00
Aroostook farm, 1913	10,000.00
Aroostook farm, balance due, 1915	13,000.00
Aroostook farm, maintenance, 1915-6	10,000.00
Animal husbandry investigations, 1915-6	10,000.00
	<hr/>
	\$1,941,336.78

The above does not include amounts expended by the State for the expenses of legislative committees, trustees' fees and expenses, printing and binding except as specified, instruction in forestry, 1903-date, and forest nursery, 1913-date, nor for the inspection work with which the Agricultural Experiment Station is charged by law and the cost of which is maintained by the State, largely by fees.

GOVERNMENT BENEFACTIONS

Land grant fund	\$118,300.00
Interest on land grant fund, 1867-1916	338,107.51
Hatch and Adams acts, 1887-1916	573,750.00
Morrill act and Nelson amendment, 1890-16 . .	795,000.00
Smith-Lever act, 1915-6	32,436.00
	<hr/>
	\$1,857,593.51

The above does not include the salary of the Professor of Military Science and Tactics, paid by the United States, beginning in 1882, to the present time, with the exception of a period during and following the Spanish War.

SALE OF THE LAND SCRIP

THE authority for the sale of the land scrip received by the State of Maine under the first Morrill Act of 1862 is found in Section 6 of Chapter 532 of the Private and Special Laws of Maine, 1865, approved February 25, 1865. Section 6 reads as follows: "The governor and council shall take measures as soon as may be advantageously done, after the passage of this act, to sell the land scrip received by this state under the act of Congress and to invest the same as required by the fourth section of said act. The securities shall be kept by the state treasurer, and he shall report annually to the legislature the amount and condition of the investments, and of the income of the same. He shall from time to time, as the income shall accrue, pay over the same to the treasurer of the college."

The original Board of Trustees consisted of sixteen members, one from each county in the State, and was constituted a body politic and corporate, by the name of the "Trustees of the State College of Agriculture and the Mechanic Arts." A majority of this Board sent to the Governor of the State the following communication bearing date November 22, 1865:

"To His Excellency Samuel Cony, Governor of Maine:

The undersigned, members of the Board of Trustees of the College of Agriculture and the Mechanic Arts, take this method to indicate their views regarding the disposition of the land scrip for said college,

viz.: That it seems desirable to sell the same at an early day at the best rates which it may command.

Very respectfully, your obedient servants,

C. A. EVERETT,
ROBERT MARTIN,
A. S. PERKINS,
SAMUEL F. PERLEY,
DENNIS MOORE,
SEWARD DILL,
JOSEPH DAY,
JOSEPH FARWELL,
N. T. HILL."

Upon receipt of this communication, "the council passed an order approved by the Governor, directing the Secretary of State to advertise for proposals for the same, to be received up to the first day of March then next ensuing, in the State paper published in Augusta, in the Boston Daily Advertiser, in the New York Journal of Commerce, and the New York Daily and Weekly Tribune, in the Chicago Tribune, and the St. Louis Democrat; which was accordingly done. The following is a copy of the advertisement.

"STATE OF MAINE. EXECUTIVE DEPARTMENT.
Augusta, December, 21, 1865.

"Sale of United States Land Scrip. Proposals will be received till the first day of March, 1866, by His Excellency Samuel Cony, Governor of the State of Maine, for the purchase of the Land Scrip issued to said State for the endowment of a college for the benefit of Agriculture and the Mechanic Arts, in quantities not less than five thousand acres. Terms cash, payable in lawful money, at the Office of Treasurer of State of Maine, at Augusta, or at the Suffolk National Bank, Boston, in twenty days after notice issued of acceptance of offer. The Scrip to be delivered at Augusta. Right to reject proposals re-

served. All offers will be directed to the address of the Secretary of State, Augusta, Maine, and endorsed on the outside 'Proposals for Agricultural College Scrip.'

EPHRAIM FLINT, Secretary of State."

The results of the bidding can be briefly summarized. The bids were examined on March 1, 1866, by the Governor and Council. It was found that nineteen bids had been made by eleven different parties. The bids in the aggregate were for two hundred and twenty-seven thousand three hundred and sixty acres, and they varied in amount from ten to sixty cents per acre. It was decided to reject all bids below fifty-two and one-half cents per acre and to accept those at or above that sum. The accepted bids amounted to one hundred and twelve thousand three hundred and sixty acres and the rejected bids, to one hundred and twenty-five thousand acres.

From one successful bidder no reply was received, and another, through delay in the mails, failed to receive his notice in season and purchased elsewhere, and so modified the amount of his bid. The outcome was that upon the bids as made up to the first day of March, 1866, the amount of land scrip sold was for ninety-nine thousand three hundred and sixty acres.

Later in the same month, some of the previously accepted bids were duplicated or triplicated, and others were made above the minimum price so that, in connection with the sale advertised, the amount of land scrip sold was for one hundred and ninety-three thousand six hundred acres. The amount then remaining unsold was one hundred and two pieces of scrip of one hundred and sixty acres each, or sixteen thousand three hundred and twenty acres. This was reserved for

future location, should the Trustees so desire, or for future sale.

The proceeds of the land scrip sale in 1866 are shown in the Chapter of Finances. Hon. Phineas Barnes of Portland was then Treasurer of the college to be. His statement in regard to this fund is again given: "The State Treasurer has transmitted to me a statement of the proceeds of sales and of the investment of the same, giving results as follows:

Proceeds of sales	\$102,759.20
Invested in Bonds of the State of Maine to the amount of \$104,500, costing	102,564.50
Surplus	<hr/> \$194.70

For the one hundred and ninety-three thousand six hundred acres sold, this implies an average price of a little above fifty-three cents per acre.

In 1870, the remaining land scrip for sixteen thousand three hundred and twenty acres was sold by Governor Chamberlain and his Council for eight-four cents per acre. The endowment fund resulting from the entire sale of the land scrip is \$118,300.

The prices received per acre for the land scrip sold were very variable in the different states. Many of the western states had a large advantage in that they could locate the lands received under this grant within their own borders. Federal policy precluded one state from owning lands within the limits of another state, but its assignees could so locate and own lands. Many of the eastern and southern states, thus unable to locate within their own borders the land to which they were entitled under the first Morrill Act, were at the mercy, so to speak, of the general land market. As a result, most of the eastern and southern states sold their land scrip at

prices ranging between $41\frac{1}{2}$ cents per acre, as in the case of Rhode Island, and 95 cents per acre, as in the case of Virginia. At the same time, those states which could locate their lands within their own territory received much larger prices for them, as shown by the following list of states and prices: Wisconsin, \$1.25; Missouri, \$1.84; Iowa, \$2.27; Michigan, \$3.25; California, \$5.00; Minnesota, \$5.62 per acre. It will be remembered that New York sold a part of her land scrip at 61 cents per acre, and that a part was purchased by Hon. Ezra Cornell who located the land and sold the most of it at \$5.00 or more per acre, giving Cornell University the benefit of the transaction.

The prices received for the land scrip per acre when all was sold by the several New England states are herewith given: Maine, $55\frac{1}{2}$ cents; New Hampshire, 53 1-3 cents; Vermont, 81 4-5 cents; Massachusetts, 65 3-5 cents; Rhode Island, $41\frac{1}{2}$ cents; Connecticut, 75 cents. It is noticeable that the land scrip put on the market early sold for less than that put on the market later when its flooded condition had abated.

The wide variation in the different states in the amount received for the land scrip gave rise to the question whether in those states in which but a small endowment had been secured the sale of the land scrip had been wisely and judiciously managed. In 1876, such a question gained some prominence in the Maine Legislature, and a committee of investigation was ordered. On the 31st of January, 1876, the Legislature passed the following resolve:

"Whereas, The lands or scrip granted by Congress to this State for a College of Agriculture and Mechanic Arts, are reported to have been sold at prices far below those obtained by some other States for similar land or scrip, be it

"Ordered, That a Committee of seven on the part of the House, with such as the Senate may join, be appointed for the purpose of investigating said sales, and that said Committee have power to send for persons and papers and administer oaths and report to this Legislature."

The persons appointed on the Committee on the part of the House were Messrs. Bass of Bangor, Shepherd of Skowhegan, Powers of Houlton, Haynes of Augusta, Pike of Calais, Anderson of Portland, and Kimball of Waterford; and, on the part of the Senate, Messrs. Swazey of Oxford, Wheelwright of Penobscot, and Donworth of Aroostook.

Ten witnesses were summoned, among whom were Charles P. Brown, Esq., of Bangor, who had had experience in dealing with western land warrants, and who had conferred with Governor Cony relative to the purchase of a portion of the college land scrip, Hon. Hiram Ruggles of Carmel, Chairman of Governor Cony's Executive Council, who had a part in the examining and accepting or rejecting of bids, and Hon. Abner Coburn of Skowhegan, a former Governor of the State of Maine, a large land owner, and, in 1876, President of the Board of Trustees of the State College. The other seven witnesses were called on account of their supposed interest in or knowledge of conditions relating to the sale of the land scrip.

A stenographic report was made of proceedings at the several hearings, and the testimony given was regarded as the evidence before the Committee. A report signed by five members of the Committee gives a synopsis of evidence presented by the several witnesses, and concludes in part as follows:

"The undersigned do not deem it their part to draw

conclusions from the testimony thus presented. The whole matter is now before the Legislature, who are possessed of all the information we have been able to obtain. It will be seen that other states in New England, as a whole, received very considerably more than the State of Maine. Some of them sold at an earlier date than we did and some at a later period.

* * * Some of the other states located their lands, first assigning to trustees in order to comply with the law, and the others sold their scrip. Why our state authorities did not take measures to locate a portion of the scrip, as was wisely advised by Mr. Brown, or why Mr. Brown's offer to purchase was not accepted, or he in some way notified, as his offer would have yielded a much larger sum than was realized, or why the land scrip was not held for a rise as Ex-Governor Coburn intimated would have been his policy, are questions that the Legislature, in view of all the facts in the case, can answer as well as we. The whole matter presses annually upon the public attention when appropriations are made for the Agricultural College, and it is certainly a matter of sincere regret to all the people of the State, whatever may have been the cause, that a larger sum was not obtained from this ample donation from the general government."

Signed,

"J. P. BASS,
SAMUEL J. ANDERSON,
JNO. P. DONWORTH,
F. A. PIKE,
A. S. KIMBALL."

The other five members of the Committee, basing judgment upon the same facts and evidence, reached a definite conclusion which is herewith given:

"CONCLUSION.

"After the fullest investigation, we the undersigned, members of Committee, most respectfully submit the foregoing statement of testimony and facts relative to said sale, and that from such examination we report that those persons who were charged with the disposal of the Maine College Scrip, faithfully and honestly discharged the trust confided to them, and obtained for the scrip its fair market value at the time of sale."

Signed,

"JOHN P. SWAZEY,
LLEWELLYN POWERS,
J. S. WHEELWRIGHT,
R. B. SHEPHERD,
J. MANCHESTER HAYNES."

"Augusta, February 22, 1876."

In the report of one group of the investigating committee, the question is asked, "Why our state authorities did not take measures to locate a portion of the scrip?"

In partial reply, it is easy to conceive that several considerations were weighing upon the minds of the Board of Trustees and the executive officers of the State in 1865 and 1866, in regard to the disposition of the College land scrip. Among these, the following were surely prominent:

1. The large importance of securing promptly an earning fund for the college to be established.
2. The sale of the land scrip was the most direct and available method of starting such a fund.
3. The large amount of land scrip from the several states put upon the market at once pointed to an early sale as most desirable.

Accordingly, an early sale of the larger part of

Maine's land scrip was made by the State authorities under the request and sanction of the Trustees. The scrip representing 16,320 acres of land still remained unsold. Early in 1867, the original Board of Trustees, consisting of sixteen members, one from each county, retired in favor of a smaller board of seven members to be appointed by the Governor of the State.

At the opening of the College in 1868, the new board had come into service. The writer recalls very distinctly that within the following year this new board had under consideration the policy of locating, through an assignee, either wholly or in part, the 16,320 acres of land still unsold. Evidently, they had not made known their thought to the State authorities, and, so it came about that while their plan to locate was still under consideration, the remaining land scrip was sold at eighty-four cents per acre by Governor Chamberlain and his Council, acting under the same mandatory legislation which had determined Governor Cony and his Council to make the earlier sale. Thus the land was all disposed of with only a very modest endowment for the College secured.

Looking back upon the transaction after a period of nearly half a century, it would not be difficult to suggest what might have been a better plan of dealing with Maine's land scrip, but such suggestion would be based upon experience of after-knowledge rather than upon the knowledge then possessed.

At the close of the investigation in 1876, the general concensus of feeling and of opinion was doubtless expressed by the closing lines of the two reports, each signed by five members of the Committee:

- I. "Sincere regret * * * whatever may have been the cause, that a larger sum was not obtained

from this ample donation from the national government."

2. The Conclusion "that those persons who were charged with the disposal of the Maine College Scrip, faithfully and honestly discharged the trust confided to them, and obtained for the scrip its fair market value at the time of the sale."

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